

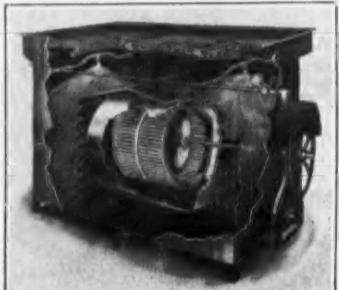
Air-Conditioning Design and Installation

HOME FURNACE UNIT WASHES, FILTERS AIR

HOLLAND, Mich.—An air-conditioning unit, which washes, filters, humidifies and circulates air throughout a home from a centrally installed 48x26x46-in. metal cabinet, is being introduced by the Home Furnace Co. here. It is priced at \$220 delivered, installation charged extra.

The equipment is designed for installation in connection with any warm air heating system, officials of the company explain, and uses the existing supply and return ducts.

Included in the cabinet are a furnacestat, water pressure gauge, regulator, solenoid valve, strainer, water



Cut-away of the Home Furnace unit, showing filter in top and action of water sprays.

spray and three sections of an air filter (with capacity for 2,400 cu. ft. per minute).

Air is drawn in through the shroud in the top of the cabinet from return ducts connected to rooms of the house, and passed through the horizontally mounted renewable filters, and into the double water spray chamber where two sprays wash the air. Drain connections are made to remove the water. An adjustable pressure valve permits regulation of the water consumption.

A large-diameter, slow centrifugal fan draws the air from the spray chamber and discharges it through a 15x37-in.



Installation with a warm-air furnace, showing how cleaned air is forced into the furnace system.

square opening into the furnace (where it is heated in winter), and then up through ducts to the various rooms.

A $\frac{1}{4}$ -hp., 1,725-r.p.m. motor drives the centrifugal fan through a pair of pulleys, one of which has three grooves so the blower speed can be changed from 265 to 365 to 450 r.p.m., giving from four to six air changes per hour, depending on the size of the house. Electrical controls permit operation of the water spray only when the blower is running.



The Aetna Rubber Co., Ashtabula, Ohio



3331 Rutger St. St. Louis, Mo.

Cooled for Summer Patrons



Stape's luncheonette in Wilmington installs two Copeland room coolers with a one-ton refrigerating machine.

Good Ventilation in One of Twin Cafeterias Induces Owners to Air Condition Other

BALTIMORE—Comparison of revenue between the two Oreole cafeterias in the Baltimore Association of Commerce building, has induced proprietors of the two restaurants to install an air-conditioning system in the southern one. The two cafeterias are located on either side of the building elevators.

It all came about from the installation of a ventilating system last year in the north cafeteria, which with proper ventilation, can be maintained at a fairly comfortable temperature, due to its being located directly over a cool basement.

South Cafeteria Uncomfortably Hot

The south cafeteria, however, is not so fortunate in its location from the standpoint of temperature, for the kitchen supplying both cafeterias is directly beneath it. Furthermore, a mezzanine floor extends around almost the entire room, allowing a head room of only about eight feet below and above it. The steam tables and coffee urns are located under a portion of it.

During noon hours both cafeterias are very busy places and the heavy patronage simply piles up more heat. Without a doubt it was hot in the south cafeteria, under the mezzanine and above it—much hotter than in the north cafeteria—and the 16 oscillating fans simply kept the hot air in motion.

Decide to Use Air Conditioning

Then human nature, patrons as well as owners, compared comfort conditions in the north and south cafeterias, and it was decided that something would have to be done about it and done quickly, for summer was in the offing.

Reader, Elser, and Akers were employed as engineers and their's was not an easy problem. Because of the low head room, above and below the mezzanine, ducts would undoubtedly produce objectionable drafts.

Furthermore, the mezzanine was finished in painted acoustic celotex and any form of duct system would deface its appearance and finish, on the ground floor as well as on the mezzanine.

As no floor space on either the ground floor or mezzanine could be sacrificed, the use of coolers on the floor or ceiling was out of the question. Cooling units, discharging air across the narrow dimensions of the room, were also objected to because of possible trouble from drafts.

Outlet at Each End of Room

After considering the problem from every angle it was concluded that the only way to get results was to install an air-conditioning unit in each end of the room, with air outlets close to the ceiling so that the main air stream would pass over the ends of the mezzanine without causing drafts.

It was felt that because of the length of the room the air would diffuse sufficiently to cool the mezzanine properly as well as the ground floor, and return to the units underneath the mezzanine.

Inside conditions laid down by the engineers were 85° F. dry bulb with 55 per cent relative humidity and 70° F. dry bulb with 60 per cent relative humidity; outside conditions of 95° F. dry bulb with 78° F. wet bulb, and 70° F. dry bulb with 90 per cent relative humidity.

The space to be cooled was specified as 85x26x16 ft., or approximately 35,000 cu. ft., with a heat load of 250 people,

4,000 watts, 3 coffee urns, 1 steam table 14 ft. long, and 1,750 cu. ft. of outside air per minute for ventilation or an air change every 20 minutes.

It was decided to install a separate refrigerating unit for each of the two conditioners, making two complete and independent air-conditioning outfits.

This not only provides a factor of safety in the event of trouble with one unit, but offers flexibility of operation when the load is light during the fall and spring seasons, the designers explain.

The installation consists of two $\frac{1}{2}$ -ton York Freon refrigerating units, and two York coil type air conditioners. One conditioner is erected on a steel substructure above the revolving door at the main entrance, and the other at the rear above the mezzanine.

The conditioners are insulated with 2-in. corkboard, and enclosed with plasterboard, finished to match the existing walls. Entrance doors are provided for these enclosures in order to give access to the conditioners for inspection.

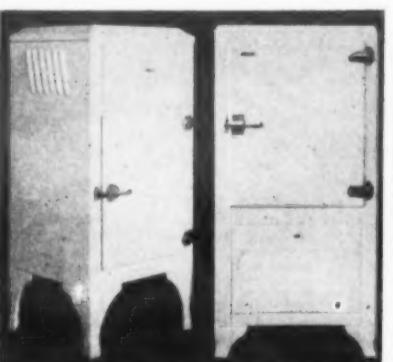
Refrigerating Unit Under Sidewalk

The thermostat controlling the operation of each machine is located in its respective return air grille.

The refrigerating unit for the front of the dining room is located under the sidewalk. The rear refrigerating unit is located in the kitchen and operates in a temperature that sometimes rises to 110° F.

The system was placed in operation the latter part of June. Air circulation throughout the cafeteria and the performance of the entire equipment has been satisfactory to the owners and engineers, and many favorable comments have been made by the patrons.

It now remains for the owners to determine if human nature will again make comparisons between the respective conditions in the air-conditioned south cafeteria, and the well-ventilated north cafeteria, requiring the installation of air conditioning in the latter also.



EBCO Enamaled Refrigerator Cabinets

Standard Models in top and bottom mounting in sizes 4, 5 and 7 feet. Beautiful in appearance with rugged efficient construction. Choice of hardware and panels.

Prompt delivery on standards and specials
Inquiries solicited
25 years enameling and cabinet fabrication

D. A. Ebinger Sanitary Mfg. Co.
401 W. Town St. Columbus, Ohio

AIR FORCED THROUGH WATER IN 'PURE-AIRE'

CHICAGO—The Pure-Aire Corp. here is manufacturing a portable air conditioner designed to cool, dehumidify, clean, circulate and humidify the air. Ice is the cooling medium used.

Air is drawn from the bottom of the cabinet by a multi-blade suction fan driven directly from the motor shaft, which forces it upward into a metallic air chamber submerged in the water tank. The air, still under pressure, is then forced downward through the water and is liberated to pass upward again, through a spray of water, which humidifies it in winter and dehumidifies it in summer. Air is liberated through an adjustable louvre in the side of the cabinet, near the top.

Eight models of the unit are being manufactured, four of which are enclosed in wood cabinets, while the other four are in steel cabinets. Models S-1 and W-1 have water tanks with 6-gal. capacities and 1/20-hp. motors. Models S-2 and W-2 have 9½-gal. water tanks and 1/10-hp. motors.

Models S-3 and W-3 have 11½-gal. tanks and use ½-hp. motors, while models S-4 and W-4 also have 11½-gal. tanks, but are powered by ½-hp. motors. In summer, a 75-lb. ice block is placed in the water tanks to furnish cooling.

The water container is of porcelain on rustproof steel. The cabinets are finished in walnut, mahogany or any color which harmonizes with the decorative scheme in the buyer's home.

The air capacity of the units ranges from 6,500 cu. ft. per hour for the smallest conditioners, to 30,000 cu. ft. per hour for the largest. With each unit sold is a one-year guarantee by the manufacturer against defective parts or workmanship.

OLYMPIC ATHLETES TRAVEL IN AIR-CONDITIONED CARS

NEW YORK CITY—Some of America's foremost athletes had their first taste of railroad air conditioning recently when they boarded a crack B. & O. train at the Grand Central Station here, bound for Los Angeles. The train was cooled by equipment of the York Ice Machinery Corp.



Revere Brass Forgings

for
Gas-tight
Refrigerator parts



One of the oldest and most prominent manufacturers of refrigerators has consistently used Revere Brass Forgings for fittings in refrigerant lines.

Three important advantages appealed particularly to this manufacturer, whose letter to us says (in part):

"We are handling a gas which is extremely thin, and the close texture and grain construction of Revere Brass Forgings is a decided necessity. Another factor: with Revere Forgings we are able to maintain a definite inventory figure, not possible with castings because of high scrap. If it were necessary to revert to castings, we would be seriously handicapped in our manufacturing program."

Other Revere Products for the refrigerator industry:

Sheet Copper . . . available in every commercial variety.

Brass Rod . . . especially suited for high speed screw machine production.

Dehydrated Seamless Copper Tubing . . . a 99.9% pure copper pipe for coils and installation lines. Deoxidized, annealed and free from flaws. Dehydrated and sealed against moisture.

For further information address Revere Copper and Brass Incorporated, 230 Park Avenue, New York City.

Revere Copper and Brass INCORPORATED

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Higgins Division, Detroit, Mich.

Taunton-New Bedford Division, Taunton, Mass.

EXECUTIVE OFFICES: NEW YORK CITY

GENERAL OFFICES: ROME, N. Y.

ELECTRIC REFRIGERATION NEWS

Registered U. S. Patent Office

The business newspaper of the refrigeration industry

VOL. 7, NO. 2, SERIAL NO. 182
ISSUED EVERY WEEK

Copyright, 1932, by
Business News Pub. Co.

DETROIT, MICHIGAN, SEPTEMBER 14, 1932

Entered as second-class matter
Aug. 1, 1927, at Detroit, Mich.

THREE DOLLARS PER YEAR
TEN CENTS PER COPY

G. E. TOPPERS TO TAKE VACATION AT LAKE PLACID

Winter Sports Feature Program of Annual Meeting

CLEVELAND, Ohio—Bob-sledding, skiing, skating and all other forms of winter sports at Lake Placid, N. Y., winter playspot, will be the reward next January for about 300 General Electric refrigerator salesmen from all parts of the United States, according to M. F. Mahony, merchandising manager of the General Electric refrigeration department.

The 1933 vacation for the department's crack salesmen will begin January 16 when the men, all members of the General Electric Toppers' Club, will meet in Erie, Pa. At Erie, the men will be taken for an inspection trip through the General Electric refrigerator cabinet plant and through the electric locomotive division.

A noonday lunch will be served in the works restaurant and the remainder

(Concluded on Page 12, Column 2)

Ahrens for President

(Special Wire to Electric Refrigeration News)

CLEVELAND—Albert Ahrens, Oklahoma City, candidate for the presidency of Refrigeraria, swept all opposition from his path last week, the first week of the "Monitor Top Election Campaign," and now leads the entire field with 30,888 votes, more than 200 per cent of his quota for this period.

While Ahrens made this unexpected showing, A. Wayne Merriam, who last spring was just nosed out of the generalissimo title by C. L. McCrea at the close of the "Monitor Top War Campaign," is second in the list with a total of 27,664 votes.

Third place was captured by E. M. Browne, the favorite candidate of the A. H. Sterling-Thompson outfit in Louisville, Ky. "Wild Bill" Driscoll ranks fourth with 21,040 votes, 3,200 behind Browne.

The 15 leaders, all of whom reached approximate quota or more in the first four days' work, include R. S. Montgomery, Frank Edwards, Phil Harrison, J. E. Neily, H. H. Courtright, Dorsey Hines, Clark Adams, Charles Gould,

(Concluded on Page 12, Column 2)

FRIGIDAIRE SALES SHOW GAIN AS MONTH OPENS

DAYTON—Refrigerating Equipment Co. of Indianapolis, Frigidaire distributor, increased its business more than all other Frigidaire branches and distributorships for the first 10 days of September, with sales for this period topping those of the similar period last year by 130 per cent, according to H. W. Newell, Frigidaire vice president in charge of sales.

This report, with those from other districts, was sent to the factory by wire, in response to inquiries by C. A. Copp, general sales manager.

Newell attributes these increases to the company's recent announcement of a household model to sell, installed, for \$112, plus freight.

From P. K. Abry, manager of the Kansas City district, comes a report that customer billings for the first third of September were 100 per cent ahead of those for the same period in 1931.

Al Hattenbach, Pittsburgh distributor, also announces a 100 per cent increase

(Concluded on Page 12, Column 1)

COMMERCE SELLS 2,800 UNITS TO DEPARTMENT STORES

DETROIT—Approximately 2,800 Commerce electric refrigerators have been built to date this year by the Commerce Pattern & Foundry Co., and sold through the several department stores, furniture stores, etc., handling the machine, according to E. E. Cloutier of the sales department. Plans for next year include expansion of the production department.

A substantial portion of the total was sold by Houghton & Dutton, Boston department store, he reports. Detroit retail sales outlets include the Detroit Edison Co., J. L. Hudson's department store, the Good Housekeeping Shop, Gardner-White furniture stores, and the Lind Radio Co.



Norge Champion Receives Nash Sedan



Norge officials pose with Ben O. Tolleson, national champion salesman, in front of the Nash sedan awarded to Tolleson. In the picture (left to right), are: J. A. Sterling, sales promotion manager; M. G. O'Hara, eastern manager; A. R. McMillan, sales development manager; Major Howard E. Blood, president; Tolleson; John H. Knapp, vice president in charge of sales; W. C. Rowles, district manager, and R. E. Densmore, western manager.

7 WINNERS NAMED IN WESTINGHOUSE TOUR'

MANSFIELD, Ohio—Seven salesmen were awarded merchandise prizes for traveling the greatest number of leagues in the Lucky Seven Wonder Tour sales contest held by Westinghouse Electric & Mfg. Co., from July 7 to Aug. 27, according to R. C. Cosgrove, manager of the refrigeration division.

The winning salesmen were: L. D. Pulsifer, King and Orput, Portland, Ore.; George Schultz, Arthur Lindburg Co., St. Louis; J. F. McDonnell, Werco, Inc., New Rochelle, N. Y.; P. T. Smelzer, Tremont-King, Inc., Ithaca, N. Y.; R. H. Purlicher, E. S. Strohplet, Madison, Wis.; J. G. Lang, Arthur Lindburg Co., St. Louis, and L. E. Gray, Modern Home Appliance, Birmingham, Ala.

In addition to the merchandise awards for the salesmen, chests of gold were given for the high men in each of the nine districts participating in the contest. These salesmen who won chests of gold in the districts were:

New York district: J. F. McDonnell, Werco, Inc., New Rochelle, N. Y., first prize, and V. Lebedeff, Allen-Ingramham, New York City, second. Middle Atlantic district: J. L. Mullen, Van Zandt Supply

(Concluded on Page 2, Column 4)

MAJESTIC INCREASES RADIO FACTORY STAFF

CHICAGO—Grigsby-Grunow Co., manufacturer of Majestic refrigerators and Majestic radio equipment and sets, has increased its production schedule and is now giving employment to about 2,000 operators.

Yancey Appointed President of Larkin

ATLANTA—B. E. Yancey has been appointed president of the Larkin Refrigeration Corp., formerly known as the Larkin-Warren Refrigeration Corp., of this city, according to Lester U. Larkin, vice president and general manager of the new concern. V. P. Warren, former president of Larkin-Warren, has retired from the management.

B. A. Greenspan has been made sales manager, W. B. Joiner, assistant sales manager and T. A. McGurn, special representative.

Greenspan has been connected with

(Concluded on Page 2, Column 5)

SERVEL TELLS SALESMEN OF 'GOLD RUSH' CONTEST

EVANSVILLE, Ind.—"You won't need a covered wagon to take you to this year's gold fields," is the message conveyed to the 5,000 Servel Hermetic and commercial salesmen who are enrolled in the Servel Forty-Niners' Gold Rush sales campaign, which began Tuesday, Sept. 6.

This message was presented by means of a large mailing piece in the form of a covered wagon, and was the first step of the campaign. Accompanying the covered wagon announcement was a letter explaining the outline of the campaign and instructions for getting started in the contest.

The "gold rush" will continue for 49

(Concluded on Page 2, Column 4)

FRIGIDAIRE PROMOTES 3 SALES EXECUTIVES

DAYTON—F. H. Pierce, B. J. Vandoren and R. B. Ambrose have been promoted by the Frigidaire Corp. Pierce, formerly household sales manager, has been appointed sales manager of Frigidaire Corp., having direct supervision of the household, wholesale commercial, retail commercial, air conditioning, public utilities and department store divisions.

Pierce became household sales manager in February, 1932, having previously been general sales manager for J. J. Pocock, Inc., Frigidaire distributor in Philadelphia. He is 31 years old.

Vandoren is now in charge of Frigidaire's wholesale commercial division, which handles national users' business, ice cream cabinets, soda fountains, marine, commercial refrigeration manufacturers and government sales.

Ambrose heads the retail commercial division which directs resale operations of dealers handling commercial products.

Formerly the entire commercial sales business was directed by Lowell McCutcheon, who recently became manager of the Chicago district.

H. W. Newell, vice president in charge of sales, heads the Frigidaire sales organization. C. A. Copp is general sales manager.

G. E. INCREASES PRODUCTION OF AIR CONDITIONERS

SCHEECTADY, N. Y.—General Electric Co. is increasing production schedule in its recently established air-conditioning equipment manufacturing department, adding about 300 employees.

Servel Salesmen Begin 'Gold Rush'



J. M. Clarke, commercial manager; C. A. Miller, sales manager, and W. Paul Jones, sales promotion and advertising manager of Servel Sales, Inc., inspect the "covered wagon" announcement being mailed to salesmen.

PRICES CUT ON 4 SMALL UNITS BY WESTINGHOUSE

National Letter Writing Contest To Open Sept. 20

MANSFIELD, Ohio—Price reductions on four Westinghouse refrigerator models have been announced by the refrigeration division of the Westinghouse Electric & Mfg. Co.

The factory f.o.b. list price on the model AL-45, lacquer-finished model with 4.2 net cu. ft., has been cut from \$165 to \$150. The AP-45, same size as AL-45 but with porcelain exterior, has been cut from \$195 to \$180.

The factory f.o.b. list price on the WL-30, apartment house model with 2.71 net cu. ft., has been cut from \$149.50 to \$145. The AL-30, with the same food storage capacity but with slightly different design and an extra shelf, has been reduced from \$151.50 to \$145 factory f.o.b. list.

Prize Contest

MANSFIELD, Ohio—To the winners of a nation-wide letter contest, which will start Sept. 20 and close Oct. 29, writing on the subject "Why the Westinghouse Dual-Automatic Refrigerator is a Year 'Round Necessity," the Westinghouse Electric & Mfg. Co. will give 50 model AL-45 (4.2 cu. ft. net) electric refrigerators.

This contest was announced at a meeting of refrigeration sales supervisors in Mansfield Aug. 29, 30 and 31.

The new model 60 Westinghouse refrigerator was also unveiled at this meeting. This model was described in detail in the Engineering Section of ELECTRIC REFRIGERATION News for Sept. 7.

R. C. Cosgrove, manager of the refrigeration division, presented the new model and gave the supervisors an outline of the fall campaign. He stated that the rules of the national letter contest are few and simple.

Letters may not be more than 200 words long and must be written on an official entry blank. All letters submitted will become the legal property of the Westinghouse organization, and may be used in any manner which it desires and at any time.

It is expected that prospects will be attracted to the dealer's showroom

(Concluded on Page 12, Column 1)

SEVEN DISTRIBUTORS WIN GIBSON 'MANHUNT' PRIZES

GREENVILLE, Mich.—Seven distributors and ten distributor's salesmen will share rewards offered in the Gibson "Get-Your-Man" contest which ended Aug. 27, according to Frank S. Gibson, Jr., vice president in charge of sales for Gibson Electric Refrigerator Corp., here.

Assortments of groceries are being given as distributor prizes to the following distributors:

MacRae, Inc., Rochester, N. Y.; Krich Distributing Co., Newark; Louis Buehn Co., Philadelphia; Marison Electric Supply Co.

(Concluded on Page 12, Column 5)

HOTPOINT BEGINS 'HUGHES CUP' TOURNAMENT

CHICAGO—A 15-week electric range sales drive, known as the "Hughes Cup" tournament, has been launched by the Edison General Electric Appliance Co., Inc., according to W. A. Grove, head of the sales promotion department. The campaign began Sept. 1 and will come to a climax during the holiday season, ending Dec. 17.

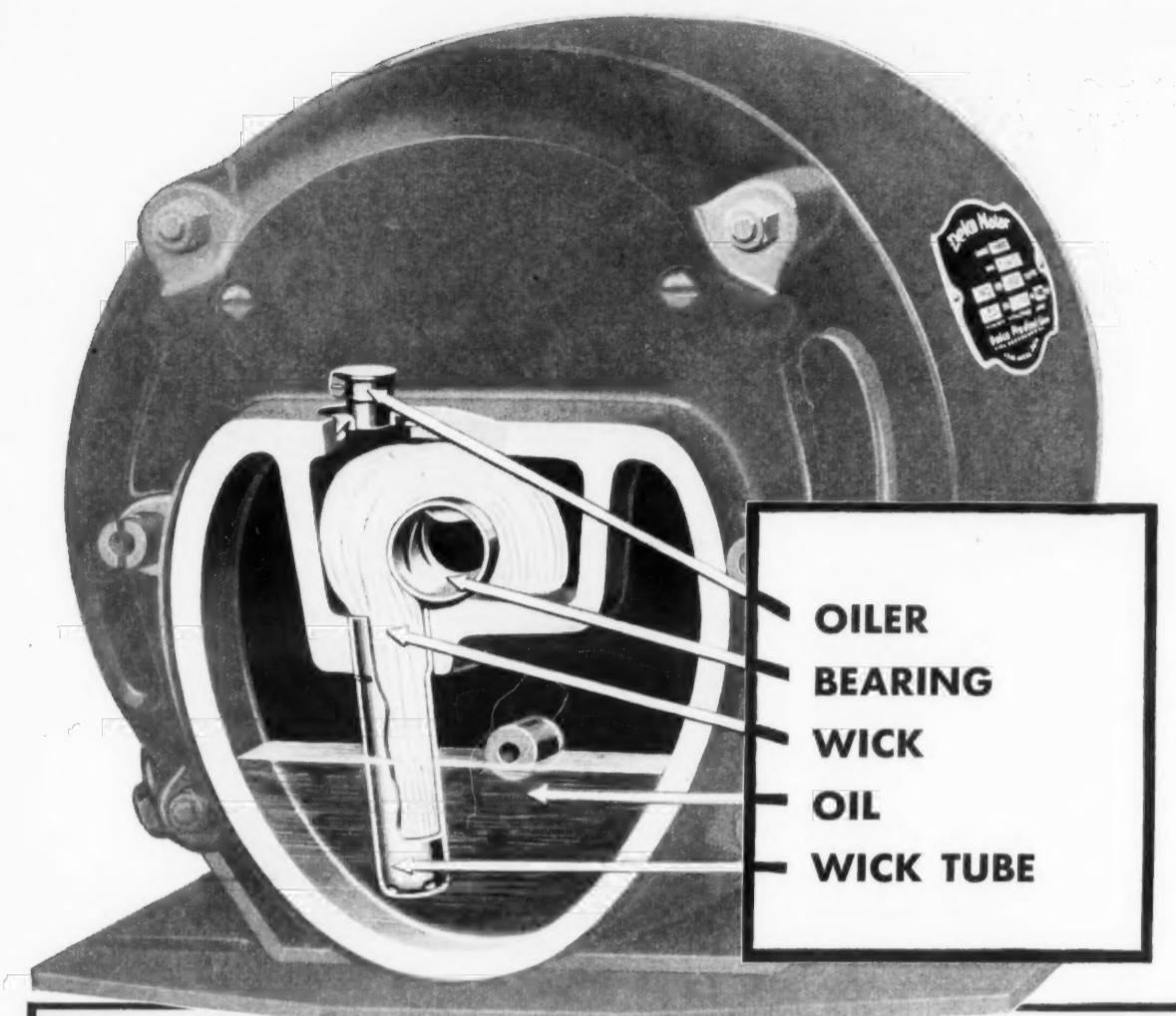
Quotas have been assigned to all General Electric-Hotpoint range distributors.

(Concluded on Page 12, Column 3)

WILLIS, MEYERS PROMOTED BY REDISCO

DETROIT—A. N. Willis, credit manager, and S. E. Meyers, collection manager, of the Refrigeration Discount Corp. (a subsidiary of Kelvinator Corp.) have been appointed assistant treasurers, according to C. A. Armstrong, vice president and general manager of Refrigeration Discount Corp.

Both of the newly appointed officers have been connected with ReDisCo almost from the date of its organization.

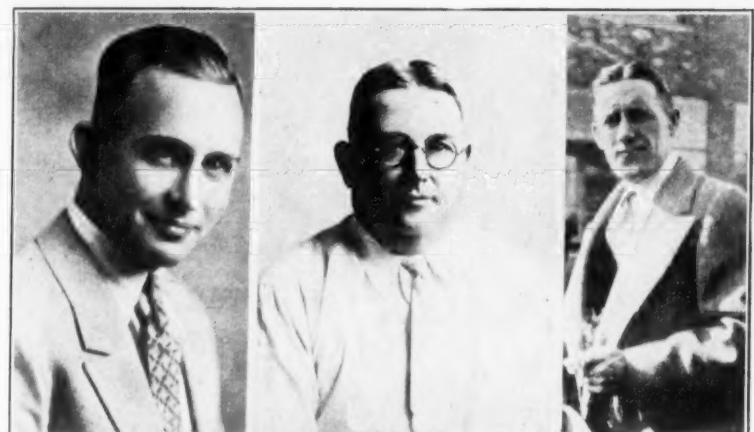


DELCO MOTORS WITH SEALED LUBRICATION

SUPPOSE that one of your refrigerators gets into service without receiving installation attention. It makes no difference, so far as the motor is concerned, if it is provided with Delco Sealed Lubrication. Suppose that a service man is called away before he has time to lubricate the motor—suppose that an owner tries to put kerosene in the bearings . . . these hazards and all others contributing to motor bearing failure are obviated by Delco Sealed Lubrication. The correct amount of oil, the correct grade of lubricant, is sealed in each bearing at the factory. It stays there throughout the life of the motor. It can't run out, even if the motor is tipped on end or shipped upside down. It feeds to the bushing under positive capillary pressure, and all excess lubricant from the bushings automatically returns to the reservoir. Sealed Lubrication forestalls the most common cause of refrigerator motor trouble. And it is available on the most successful electric refrigerator motor ever produced. Millions of Delco refrigerator motors are giving satisfactory service today.

**DELCO PRODUCTS
CORPORATION**
DAYTON, OHIO

Seven League Booters



These three men were the leaders in the Westinghouse 'Lucky Seven Wonder Tour' sales contest which closed Sept. 7. They are (left to right) L. D. Pulsifer, first, Portland, Ore.; George Schultz, second, St. Louis, and J. F. McDonnell, third, Mount Vernon, N. Y.

7 Winners Named In 'Wonder Tour'

(Concluded from Page 1, Column 2)
Co., Huntington, W. Va., first, and F. S. Cunningham, Parks and Hull, Baltimore, second.

Southeastern district: L. E. Gray, Modern Home Appliance, Birmingham, Ala., first, and A. R. Graves, McWilliams Hardware Co., El Dorado, Ark., second. Central district: J. E. Anderson, John J. Carroll Store, Newark, Ohio, first, and J. R. Fowler, W. R. Gott, New Kensington, Pa., second.

Northwestern district: R. H. Purlicher, D. S. Strohplet, Inc., Madison, Wis., first, and Paul Rich, Rich & Co., Indianapolis, second. Southwestern district: George Schultz, A. R. Lindburg Co., St. Louis, first, and J. G. Lang, A. R. Lindburg Co., St. Louis, second.

Buffalo district: P. T. Smelzer, Treman-King, Inc., Ithaca, N. Y., first, and J. J. Thompson, Howe and Rogers, Rochester, N. Y., second. Boston district: Clark Harding, Electric Device Co., Springfield, Mass., first, and Frank Lynch of the same company, second. Pacific Coast district: L. D. Pulsifer, King & Orput, Portland, Ore., first, and Elmer Larson, Turner Hardware & Implement Co., Stockton, Calif., second.

A special prize, which was given to the salesman who was the first to complete the tour, was won by George Schultz of the Arthur Lindburg Co., St. Louis (see page 1 of Aug. 17 issue of ELECTRIC REFRIGERATION NEWS).

The Lucky Seven Wonder Tour, which was a mythical trip taken by participating salesmen to the seven ancient wonders of the world, included stops at the Colossus of Rhodes, the great wall of China, the pharos of Alexandria, the leaning tower of Pisa, the pyramids of Egypt, the Tower of Babel and the Colosseum of Rome.

When a salesman completed the tour, which was 2,100 leagues in length, representing the sale of approximately 14 refrigerators, he became a "7-wonder globe trotter" and on his second circuit he became a "14-wonder globe trotter."

SERVEL TELLS SALESMEN OF 'GOLD RUSH' CONTEST

(Concluded from Page 1, Column 3)
working days, from Sept. 6 until Nov. 1.

W. Paul Jones, Servel advertising and sales promotion manager, has just returned from a series of meetings with distributors and dealers in the Middle West, in which he presented full details of the contest to the Peaslee-Gaulbert Corp., distributor, and the J. C. Kirchdorfer Co., commercial dealer, both of Louisville; the Griffith Victor Distributing Co., Cincinnati; Stewart-Warner Sales Co., Columbus, and the Griffith Victor Distributing Co. of Dayton and Indianapolis.

Meetings were held with wholesale supervisors of these distributors, field representatives and a number of the larger dealers, at which time local plans were laid for the introduction of the contest.

One of the factors which makes the Servel gold rush so plausible to the salesmen is the parallel which it makes with actual gold mining in the western part of the United States today, believes C. A. Miller, sales manager.

"If we can believe what we read in the papers, there seems to be a definite movement back to the old gold fields," says Miller. "Many of the old abandoned mining towns in Colorado, Nevada and California are again showing signs of activity. One of our representatives who has just returned from a trip in the west reports that earnings as high as \$4 per day are not uncommon."

Several examples of large-scale mining operations are also offered by Miller to substantiate his belief. One of these, recently featured by a Chicago newspaper, concerns Claude A. Welles, former manager of the Merchandise Mart and one-time treasurer of Marshall Field & Co. Welles is mining in Libby, Mont.

YANCEY PRESIDENT OF LARKIN CORPORATION

(Concluded from Page 1, Column 3)
McCrory and leading refrigerator manufacturers for the past 18 years. McGurn comes from the Peerless Ice Machine Co. of Chicago. Joiner was formerly in the Larkin engineering department.

Speaking of the progress of Larkin coils, due to their adoption as standard factory equipment by many manufacturers, Mr. Larkin says:

"Today, slightly over three years from the time this company was formed, there is in excess of 35,000 mechanical refrigeration units using our 100 per cent vertical surface coils, over a territory that embraces the entire United States."

"We face the fall of 1932 with distribution in practically every city of



B. E. YANCEY
President of Larkin Refrigeration
Corp., coil firm.

more than 25,000 people in this country, and with representation in many countries abroad.

"This progress, coupled with the introduction to the trade of a complete newly developed line of equipment, which we will announce, including thermostatic expansion valves, as well as individual temperature control systems for multiple installations for both ammonia and low-pressure equipment, has made it advisable to increase substantially our sales organization," states Mr. Larkin.

DELANO MADE ASSISTANT TO GIBSON SALES CHIEF

GREENVILLE, Mich.—F. A. Delano has been advanced from the position of general sales manager in the Gibson Electric Refrigeration Corp. here, to the position of assistant to the vice president in charge of sales.

No vacancy is created by Delano's change in position, according to Frank S. Gibson, Jr., vice president in charge of sales, who will handle matters formerly referred to Delano.

In his new position, Delano will devote his energies to promotional and educational campaign work among Gibson distributors and dealers. He will spend much of his time in the field, conducting dealer meetings and training salesmen.

He joined the Gibson organization in 1931.

MOLNER IS NOT CONNECTED WITH FREEZE KING

CHICAGO—S. J. Molner announces that he is no longer connected with the Freeze King Refrigerator Corp. of this city.

A REVOLUTIONARY DEVELOPMENT MAKES IT POSSIBLE! A *GENUINE

SUPER-POWERED FRIGIDAIRE

(TWO CYLINDERS INSTEAD OF ONE)

WITH $\frac{1}{4}$ GREATER FOOD SPACE IN THE SAME SIZED CABINET

TO RETAIL AT

\$112

PLUS FREIGHT

DELIVERED, INSTALLED & FEDERAL TAX PAID



FRIGIDAIRE does it again! Opens a vast new market among the thousands who have always wanted Frigidaire quality but have held back because of price!

Now Frigidaire dealers can offer a genuine Frigidaire—at a price almost every family can afford—a price that also leaves the

dealer a profit. It's a *real* Frigidaire with Super Power, fast freezing, waist-high shelves, one-piece porcelain interior and other famous Frigidaire features—and in addition, *one-fourth more food space* in the same sized cabinet!

Here's a real opportunity to build volume with profit.

FRIGIDAIRE CORPORATION • SUBSIDIARY OF GENERAL MOTORS CORPORATION • DAYTON, OHIO

*WARNING!

A cheap, underpowered and poorly constructed refrigerator at any price is expensive for you to sell. Customer satisfaction—your greatest asset—is assured with this genuine Frigidaire. Nothing has been "cheapered"—it is the same Super-Powered, two cylinder Frigidaire made and guaranteed by Frigidaire Corporation, a subsidiary of General Motors.

A *GENUINE FRIGIDAIRE *A GENERAL MOTORS VALUE*

FREIGHT RULING FOR EXCISE TAX ISSUED

WASHINGTON, D. C.—When a manufacturer sells merchandise "f.o.b. at the point of origin," the manufacturers' excise taxes of the Revenue Act of 1932 will be levied on the selling price without any reference to any freight charges which the customer may pay, the Bureau of Internal Revenue ruled recently.

Pointing out that manufacturers may deduct transportation charges when computing the basis for the excise taxes, the bureau declares that all manufacturers seeking such deductions must keep records which show clearly the transportation expenditures.

Full Text of Ruling

The ruling follows in full text: Relating to Regulation 46—A number of examples will be cited below of the various conditions under which goods are sold by manufacturers, etc., and a conclusion will be indicated with respect to the question of how tax shall be computed in each case so far as a transportation or delivery charge is involved.

1. A manufacturer sells goods f.o.b. factory or point of origin. The tax in this case is, of course, on the manufacturer's selling price without reference to any freight charges which may be paid by the purchaser to secure delivery of the goods.

2. (a) A manufacturer prepays the transportation charges on goods sold. The same charge is made for goods in all parts of the United States without reference to the amount of transportation charge which may be involved.

(b) The same situation as above, with the exception that the manufacturer makes a higher charge in the case of goods delivered to points west of the Mississippi River than is charged for the same goods delivered east of the Mississippi River.



F. H. Pierce (left) has been appointed sales manager of Frigidaire Corp. R. B. Ambrose (center) is the new head of the retail commercial division, and B. J. Vandoren (right) is wholesale commercial division manager.

In the cases described under (a) and (b) the price upon which the tax is to be computed is that amount which the manufacturer receives for the taxable article less the amount of any transportation charges paid by the manufacturer to effect delivery. In other words, the basic price upon which tax is to be computed is the difference between the amount the manufacturer receives from its customer (or the invoice price) and the cost of effecting transportation and delivery to the customer.

3. A manufacturer sells taxable merchandise "freight deductible" or "freight

allowed." The purchaser at the time of remitting deducts from the amount of the invoice any freight charges he may have paid to secure delivery of the goods from the place of manufacture to the purchaser's place of business.

The price upon which the tax should be computed in this case is the amount which the purchaser remits after deducting the transportation costs permitted in accordance with the terms of the sales agreement.

4. A manufacturer located in Bridgeport, Conn., sells goods to a dealer in Kansas City, Mo., f.o.b. Bridgeport,

Conn. However, in order to equalize competitive conditions the manufacturer credits the dealer, as an allowance against the invoice price, with an amount equivalent to the difference between the transportation cost from Bridgeport to Kansas City and the transportation cost from Indianapolis (the nearest competing point) to Kansas City.

In this case tax is to be computed upon the invoice price less the amount of the special allowance for the freight differential, where it does not exceed the amount actually paid by the manufacturer as a transportation charge. In other words, the net return to the manufacturer is the basic sales price for purposes of the tax.

5. A question has arisen in connection with the deduction of drayage charges.

When a definite amount is paid by a manufacturer of goods to another person performing a transportation service by motor truck or otherwise, in order to secure delivery of goods at a customer's place of business located in a city other than that in which the manufacturer is located, the amount of such transportation or delivery charges is to be excluded from the price upon which the tax is computed.

It must be borne in mind that no transportation or delivery cost may be excluded in computing the sales price of an article for the purpose of determining the basis of the tax, unless a manufacturer maintains adequate records and retains freight bills and other evidence of the transportation and delivery charges incurred. The records must be in such shape that an examining officer of the bureau may readily determine that the amount of transportation and delivery charges claimed as a deduction has actually been paid.

It is incumbent upon every manufacturer seeking to exclude transportation and delivery charges paid by him from the total amount charged for goods sold, to establish that the exact amount of transportation and delivery charges has been paid by him or has been paid by the purchaser and deducted from the amount of the invoice.

MANUFACTURER GETS 48% OF PRICE, REPORT SHOWS

WASHINGTON, D. C.—Out of every dollar spent by a consumer for mechanical refrigeration, 48 cents goes to the manufacturer, 23 cents to the wholesaler and 29 cents to the retailer, according to the report, "Hardware Distribution in the Gulf Southwest," issued by the U. S. Department of Commerce.

On the sale price of small electric appliances the manufacturer receives 56 cents out of each dollar, the wholesaler 12 cents and the retailer 32 cents.

For radios, the manufacturer receives 52 cents, the wholesaler 14 cents and the retailer 34 cents, the report shows.

REINA WINS CHRYSLER IN REX COLE CONTEST

NEW YORK CITY—Manuel Reina, Long Island City sales representative won a Chrysler automobile as first prize in the Paul Hichborn Record Drive Contest, a sales campaign recently sponsored by Rex Cole, Inc., New York City General Electric distributor.

According to tentative scores issued at the end of July, Lester W. Hodes Bronx, was adjudged the winner, but has now been assigned second place.

William J. Heggie and Willard W. Bartlett, sales directors of the Long Island City and Staten Island divisions, who were slated for first and second prize as the two highest sales directors, maintained their positions throughout the rigid checking and rechecking of ratings that were made by retail headquarters in the week following the close of the contest.

The contest, which lasted for six months, began on the first of February. The end of the fourth month of the marathon was marked by a trip to Bermuda, to which high salesmen were eligible.

Four automobiles, two Chryslers and two Plymouths, were the rewards for the four highest men for the entire period—the two highest directors and the two leading salesmen.

Revised Standing

The revised standing for sales directors and divisions showed the following credits for the six months' period:

William J. Heggie, Long Island City, 345.0; Willard W. Bartlett, Staten Island, 314.0; Charles V. W. Smith, Bronx, 315.0; John Martin, Manhattan, 278.0; Nathaniel C. Dryden, Bond Street, 275.0.

William J. Clark, Queens Village, 255.0; Victor S. Backstrom, Jamaica, 240.0; George D. Copley, Flushing, 235.0; Charles W. Wurm, Bay Ridge, 220.0; and Robert G. Williams, Flatbush, 180.0.

The revised standing for sales representatives for the six months' period showed the following distribution of credits:

Manuel Reina, 839.8; Lester W. Hodes, 834.7; George Hutton, 774.7; John J. DeLaney, 652.7; Francis M. Schulz, 592.4; Louis W. Ellin, 569.6; Frank Siegmund, 532.5; John G. Cook, 530.3.

F. W. Grosspeter, 529.7; Andrew W. Zoltac, 506.3; C. A. Carlson, 505.0; Charles D'Orazio, 498.6; Charles Reinhardt, 462.5; Thomas L. Wilson, 459.9.

Roger Hay, 456.0; Andrew W. Langler, 456.0; Samuel Gottesman, 455.9; Herman Heissenberger, 435.3; Peter Parenti, 420.0, and Hans Omenitsch, 409.0.

APPLIANCES YIELD 9.09% OF CHAIN HARDWARE SALES

WASHINGTON, D. C.—Electrical and gas appliances, supplies and plumbing equipment net 9.09 per cent of the sales of chain hardware stores, according to a report issued recently from the Census of Distribution.

Nearly one-third of the sales consist of builders' hardware, shelf hardware, and tools; while tractors and automobile accessories, paints and varnishes, electrical and gas appliances and supplies and plumbing equipment.

The percentage of net sales of each commodity group in retail hardware chain stores, which reported commodity sales, is given in the following table. These figures are contained in "Hardware and Related Chains," a bulletin of the merchandising series being issued by the census bureau based on the Census of Distribution.

Commodity	Per Cent of Net Sales
Builders' hardware, shelf hardware, tools	30.26
Tractors and automobile accessories	11.88
Paints and varnishes	10.54
Electrical and gas appliances and supplies and plumbing equipment	9.09
Farm and garden equipment	8.22
Silverware, utensils, and crockery	7.93
Miscellaneous merchandise	7.48
Sporting goods, toys, and games	6.45
Building materials	4.16
Seeds, bulbs, and nursery stock	3.99

HE KNOWS THAT
Rollators Roll and there's Profit
FOR DEALERS!

★

THE ROLLATOR • A ROLLER ROLLS AND THERE'S ICE... THAT'S ALL THERE IS TO THE SMOOTH AND EASY OPERATION OF THE NORGE ROLLATOR MECHANISM.

★

PHILIP R. BESSERMAN, WHOSE NORGE RETAIL STORE AT 1153 FLATBUSH AVENUE, BROOKLYN, N.Y., IS SPECIALLY DESIGNED AND DECORATED FOR REFRIGERATION SALES.

★

A large photograph of Philip R. Besserman, owner of the Norge Retail Store, is shown in the center. To his left is a circular diagram of the Rollator mechanism, showing its internal components and how it works. Below the photograph is a row of several Norge Rollator refrigerators displayed in a store setting.

After selling three million dollars worth of pianos in nineteen years, Phil Besserman went into refrigeration...he sells Norge.

He is a man with years of prosperity and success to his credit. When he decided to take on refrigeration he looked for the quality of product and the manufacturing background that would insure continued success.

When he investigated Rollator Refrigeration he determined to sell Norge...he recognized in the Rollator a mechanism remarkably powerful and economical to use...he found a cabinet with a wealth

of original and exclusive conveniences, each one a powerful selling point...and backing Norge he found a responsible manufacturing organization with a policy that permits the dealer to make money on every sale.

Today he is doing a thriving business in his modern Norge store at 1153 Flatbush Avenue, Brooklyn, New York. He is planning the opening of several more stores of the same type with headquarters at 551 Fifth Avenue, New York City.

NORGE
ROLLATOR REFRIGERATION

Besserman, like other Norge dealers, has kept his original profits...they have not been used up in excessive service calls. His satisfied customers are eagerly helping him sell more Norge Refrigerators.

"There is," he says, "a profit for the dealer in every Rollator that rolls."

It is important to you to see the Norge before you sell any refrigerator.

Norge Corporation is a division of Borg-Warner Corporation, one of the world's largest makers of precision parts, including automotive free wheeling.

NORGE CORPORATION
658 EAST WOODBRIDGE STREET
DETROIT MICHIGAN

BUSH FINNED TUBING



INDIVIDUAL SQUARE FINS

With modern equipment for quantity production and 22 years experience in the manufacture of finned tubing we are ready to meet the various requirements of the refrigeration industry for condensers or other fabricated forms of finned tubing.

THE BUSH MFG. CO., HARTFORD, CONN.

WESTINGHOUSE MAKES SUPERVISOR CHANGES

MANSFIELD, Ohio—B. F. Moody has been appointed refrigeration supervisor of the New England district by the Westinghouse Electric & Mfg. Co. He will have his headquarters at the Wetmore-Savage Electric Supply Co., Boston. Moody was formerly refrigeration supervisor for the Middle Atlantic district with headquarters at Philadelphia. He will be succeeded in this district by R. Eshman.

Eshman joins the Westinghouse refrigeration division with several years



R. I. ESHMAN

of sales experience in the electric refrigeration field. Previous to his present position he was with the Kelvinator Co. for approximately four years, in various capacities in the sales departments.

Before joining the Kelvinator organization he was with Cities Service in the refrigeration sales division for 11 years.

NELSON MADE WHOLESALE MANAGER FOR HARRISON

NEWARK—Philip H. Harrison, president of Philip H. Harrison & Co., General Electric refrigerator distributor for northern New Jersey, has appointed Otto W. Nelson as wholesale sales manager. He assumed his duties Sept. 1.

In his new capacity, Nelson will have supervision over sales to all dealer outlets and utilities in the northern New Jersey territory. He previously served in the capacity of sales supervisor and contact man, supervising dealer and branch sales activities.

Nelson was formerly in the employ of Banister and Pollard, hardware dealers, serving as sales manager for a period of eight years.

SPANISH REPRESENTATIVE VISITS GIBSON FACTORY

GREENVILLE, Mich.—Jose Lopez Zueras, of Barcelona, Spain, representative for the Gibson Electric Refrigerator Corp. in Spain and Portugal, is now at the Gibson factory in Greenville, Mich., where he plans to spend five weeks in learning refrigeration manufacture and operation in various departments of the plant.

Zueras was formerly connected with the Ford Motor Co. in Havana, Cuba, where he was a promoting and servicing roadman.

Although he has represented Gibson electric refrigerators for only a short time, he has already appointed eleven distributors in Spain and Portugal.

SATURATION OF ELECTRIC RANGE MARKET SET AT 7%

CHICAGO—Based on reports of 100 companies, 96 in the United States and 4 in Canada, the total saturation of the electric range market is given as 7.2 per cent, according to the sixth annual range survey conducted by *Electric Light and Power* and published in the August issue.

This compares, approximately, with figures of 5.3 and 5.94 in 1929 and 1930, respectively.

Nearly seven per cent (6.9) of domestic electric customers in the United States possessed electric ranges by the end of 1931, the survey states. This represents an increase over 1930.

CHICAGO FRIGIDAIRE BRANCH TO HOLD DANCE

CHICAGO—Frigidaire Sales Corp. of Chicago will give a dance at the Knickerbocker Hotel here, Saturday night, Sept. 17. This dance is for the entire organization, and special recognition will be given those salesmen who did outstanding work during the month of August.

"Mr. Manufacturer"

TEMLOK can help you INCREASE PROFITS IN 1933!

ARE you looking for ways to build a better refrigerator—at an economical cost—in 1933? Then choose an insulating material that is efficient, low in cost, easily installed, and made by a manufacturer nationally known to consumers. You will want to make sure, too, that you are dealing with a dependable and reputable manufacturer that you can count upon for uninterrupted service.

Let Armstrong's Temlok Insulation save you money in assembly—make money for you on the sales floor. Here's why Temlok can do these things:

In the first place, Temlok insulation can be quickly installed. It is fabricated into sets, cut to measure at the factory. The thickness is accurate—either full inch, full half-inch, or built-up layers as desired. That means less handling. Because Temlok is strong and rigid, you save time and labor cost in assembly.

On the sales floor, use of Temlok gives you an added talking point. Your distributors can honestly say of a Temlok-insulated product: "Madam, this refrigerator will serve you better, for a longer time, and at lower operating cost! Its insulation is made by Armstrong." Your customers know Armstrong as the maker of Armstrong's Linoleum, the fine quality floor used in millions of homes. That helps.

You can count on Temlok's low conductivity (.28 B.t.u. at 60° F. mean temperature) and its natural moisture resistance to help make the refrigerators you build trouble free and economical for life. Investigate its advantages carefully before you sign your 1933 insulation contract. The coupon below will bring full data and samples—without obligation. Armstrong Cork & Insulation Company, 917 Concord St., Lancaster, Pa.

(A)
Product

**Armstrong's
TEMLOK
REFRIGERATOR INSULATION**

ARMSTRONG CORK & INSULATION CO.
917 Concord St., Lancaster, Pa.

Please send me complete details regarding Armstrong's Temlok Refrigerator Insulation.

Please send sample.

Name _____
Street _____
City _____ State _____

ELECTRIC REFRIGERATION NEWS

The Business Newspaper of the Refrigeration Industry

Published Every Week by
BUSINESS NEWS PUBLISHING CO.

Also publishers of REFRIGERATED FOOD NEWS (monthly) and
REFRIGERATION DIRECTORY and MARKET DATA BOOK (annual)
550 Maccabees Building, Woodward Ave. and Putnam St.
Detroit, Michigan. Telephones: Columbia 4242-4244

Subscription Rates:
U. S. and Possessions and countries in Pan-American
Postal Union: \$3.00 per year; 2 years for \$5.00
Canada: \$6.00 per year (U. S. Money)
All Other Countries: \$4.00 per year; 2 years for \$7.00
Advertising Rates on Request

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VOL. 7, NO. 2, SERIAL NO. 182, SEPTEMBER 14, 1932

Seal of Approval

HOW to determine the relative merits of the various electric refrigerators on the market is indeed a difficult problem; and the organization which sets itself up to make and report comparative tests usually finds itself in a ticklish situation.

In the Aug. 31 issue, ELECTRIC REFRIGERATION NEWS editorialized on "Performance Standards," pointing out that the words "electric refrigerator" do not comprise a magic name which insures good food preservation, and that unless some means is found of spotlighting differences between refrigeration capacities and operating efficiencies of the various machines now being sold, a price-conscious public may continue to shop around for the "best deal." The editorial concluded:

"Refrigerators can be inexpertly fabricated from good parts and materials. They can be well fashioned from inferior parts and materials. But neither variety will give such good satisfaction as refrigerators well made from quality components. And now that the price war is on, some accepted standard of comparison based on performance seems to be needed."

Reader Reaction

In an adjoining column of this page is printed a reaction to this editorial from Secretary-Manager G. W. Weston of the Electric and Radio Association of Kansas City. Attached is a letter Mr. Weston wrote last April to Glenn Muffly of the National Electrical Manufacturers Association, declaring that Kansas City electric refrigeration distributors "are trying to figure out some way of protecting their business and the public from the advent of cheap and inferior electric refrigerators," and indicating that they are seeking comparative test data in order that their electric refrigerator salesmen might be "fortified with information which could be used to impress upon their prospects the importance of buying refrigerators which would actually freeze under high temperatures and give durable service over a long period of time."

What Kansas City distributors want to know is how to get such test data. And that, of course, is the biggest headache of the whole situation.

Manufacturers Resist

Manufacturers generally resist any attempts on the part of private concerns to test their products. Duds will appear in almost any series of articles made by quantity production methods, and manufacturers fear that particular machines selected for testing (purchased on the open market, as is the custom in such cases) might be substandard. Companies which have conducted such tests also declare that manufacturers whose machines did not compare so well with competitive products in the trials will almost invariably aver that the laboratory did not have their latest models.

Electrical Testing Laboratories and the George B. Bright Co. have been conducting tests of electric refrigerators for the last several years; but their work is all for private individuals, and they do not make public the results of their experiments. Electric refrigeration manufacturers, notably Frigidaire, occasionally test competitive makes in their own engineering laboratories, and send out resulting data to their sales forces. Good

Housekeeping Institute awards a seal to refrigerators which measure up to its standards, and many manufacturers capitalize to the limit on this seal.

Difficult Job

Getting an entire industry to accept a "seal of approval" based upon a set of specifications and performance standards, however, is a difficult job.

If only a small group of manufacturers sponsors a particular set of standards, the claim of quality lacks force, because of the normal interpretation that the sponsorship is controlled by selfish interests. Too, member companies of a particular group will generally consider themselves competent to determine the quality of their products, and are often inclined to be insistent that the symbol be granted to all of their models, even those which rate below the standards agreed upon by the group as a whole.

When the job is turned over to an association to handle, much time is usually consumed in making the plan operative, the details often become extremely complicated, and manufacturers are rarely pleased with the resulting standards.

Even after a set of acceptable standards is devised, there remains the problem of making the public conscious of these standards. Widespread and continuous advertising is necessary to make consumers realize that a certain seal (symbol of the standards) is their protection, and to make that seal a determining factor in the purchase of an electric refrigerator.

Elements of a Plan

A plan to establish acceptance for such a seal should include the following essential elements:

1. The plan must be sponsored by a reputable organization with a sense of responsibility to the public.

2. Rules, regulations, standards and detailed specifications must be established as a basis for meritizing the seal.

3. A system of inspection, or police power, is necessary to prevent misuse of the seal.

4. The seal and its significance must be widely advertised to create public acceptance.

5. The value of the seal depends largely upon the strict enforcement of the quality standard.

If a set of equitable performance standards can be devised and translated into an easily recognizable seal of approval, public confidence may be established and purchasing facilitated. It thus becomes possible to draw a sharp line of distinction between quality products and shoddy goods, and the consumer is given an incentive for paying a higher price to secure assured satisfaction.

Sponsors of such a symbol of quality must first establish their own character and reputation. If this recognition is first gained in the industry, the influence of the symbol will quickly make itself felt in the public mind. Without the confidence of the industry as to the integrity and true merits of the standards which the seal represents, public acceptance of the seal could be established only at terrific expense.

Getting together on performance standards will call for the highest type of cooperation within the industry. Should such standards be established, however, it might well be worth the time and effort expended.

GLEANINGS FROM RECENT PERIODICALS

LET'S HAVE SOME INTELLIGENT SELFISHNESS

LOOKING at business in a cold, matter-of-fact light, "why should utility companies care whether weak, non-commercially minded dealers and contractors continue in business, dry up or prosper? Why should large manufacturers be expected to develop product distribution with trade cooperation if they can easily institute a large-scale distribution organization of their own? How can weak dealers expect stronger ones or the rest of the trade to protect and codle them when the others have nothing to gain thereby? How can electricians expect other branches to give support to their plans if those interests can secure business more easily by other methods?"

Cooperation as an appeal or plan means nothing in itself. The important factors are the motive behind the plan and the spirit back of its execution. Few cooperative plans have ever succeeded unless they considered customer viewpoint, unless each party benefited, directly or indirectly, in proportion to the individual effort contributed and unless each party's achievements were at least equal to those obtainable by tackling the job competitively.

Teamwork, not destructive competition, is needed. But all parties affected by the plan must benefit. As long as self-interest is a strong motivating influence, let's have some intelligent selfishness and not try to disguise it as altruism.

—*Electrical World*, Sept. 3.

Letters from Readers

Great Service

Western Union Telegram
1932 SEPT. 10 AM 11:33,

PHILADELPHIA
GEORGE F. TAUBENECK,
EDITOR, ELECTRIC REFRIGERATION NEWS:
YOU HAVE DONE DEALERS AND THE PUBLIC GREAT SERVICE THROUGH YOUR EDITORIAL IN SEPTEMBER 7 ISSUE. I CONGRATULATE YOU ON YOUR POLICIES AND YOUR COURAGE.

J. J. POCOCK,
FRIGIDAIRE DISTRIBUTOR.

Truthfully Written

James & Co., Inc.
Distributor of General Electric
Refrigerators
St. Louis, Mo.

Sept. 10, 1932.

Editor:

Just opened my copy of ELECTRIC REFRIGERATION NEWS and want to compliment you upon the front page editorial which you have so ably and truthfully written.

There has never been a moment of doubt in my mind as to the ultimate outcome of the brainless activity which many refrigeration manufacturers are guilty of at the present writing. However, I think it a crime that the public and the dealers have to be the innocent sufferers but I presume this always has been the case in such instances as this and probably there is nothing that any of us can do that will entirely eliminate such conditions.

However, it is just such frankness as yours which will force this business in the right channel and permit us to carry on with the standards which are necessary for us to maintain if we are to render the service which should be rendered to the American public.

L. D. JAMES,
President.

Performance Standards

Electric and Radio Association of
Kansas City
106 West 14th St., Kansas City, Mo.

Sept. 10, 1932.

Editor:

You are to be congratulated on the editorial entitled "Performance Standards" in your Aug. 31 issue. This is most timely, most pertinent and should be given serious consideration by everyone interested in electric refrigeration.

In this connection, I am inclosing a copy of a letter dated April 16 addressed to Mr. Glen Muffly of the National Electrical Manufacturers Association. Copies of this letter were sent to a number of other prominent electric refrigeration men. They agreed with our idea and expressed surprise that there were really no performance standards or quality standards for electric refrigerators.

From this letter, you can see what we were driving at and the answers to our letters indicated a need for something of this nature. We are now wondering if your splendid magazine could publish performance tests on electric refrigerators, these tests to be made by some testing bureau. Whether or not you commented on the test in any way would be a matter for you to decide.

This idea arose from the fact that a year or so ago, "Radio News" published a series of performance tests on radio receivers and these tests indicated the variations in selectivity and tonal range. If you did something of this kind, refrigerator salesmen would be fortified with information which could be used to impress upon their prospects, the importance of buying refrigerators which would actually freeze under high temperatures and give durable service over a long period of time.

For your information, the chief engineer of the Kansas City Power & Light Co., one of our member firms, is corresponding with the Electrical Testing Laboratories in New York City in regard to this matter of performance tests and I understand that this laboratory now has several different makes under test.

Here's hoping that something constructive can be done to prevent the electric refrigeration industry from having the same difficulty the radio industry did. The former product is a sort of three-in-one, which includes electrical, mechanical and chemical features. As such, it is highly important that the public recognize these things and be guided accordingly.

G. W. WESTON,
Secretary-manager.

Electric and Radio Association
of Kansas City
106 W. 14th St., Kansas City, Mo.

April 16, 1932.

Mr. Glen Muffly:
Natl. Elec. Mfrs. Assn.
420 Lexington Ave.
New York City, N. Y.

Our electric refrigeration distributors are trying to figure out some way of protecting their business and the public from the advent of cheap and inferior electric refrigerators. Most of these men are distributors of radio sets and have seen what happened to that industry. No doubt, you have been thinking along the same lines, through your

contact with the refrigeration manufacturers, and we should like very much indeed to have your views on the things we are considering and which I am outlining below.

1. Would an ordinance such as has existed in Portland, Ore., for several years, help out the situation? This ordinance prevents from sale, electrical appliances, equipment, material, etc. that does not bear the approval of the Underwriters Laboratories. This raises the question as to how far the Underwriters Laboratories has gone on the matter of approving electric refrigerators. Does such approval extend only to the electrical equipment? What provision is made for approving the mechanical features and machinery; also the cabinet itself?

2. Would anything be gained if the local refrigeration distributors, through our association, set up a plan whereby the Kansas City Testing Laboratories, or some other well-established impartial agency, would serve as the medium for testing and approving electric refrigerators? Our thought is that those which were approved by this testing agency would be given a certain stamp or insignia of approval and this would be advertised to the public as applying to refrigerators which would render proper service.

Of course, the question at once arises as to what form of tests refrigerators would have to meet to gain this approval. This is the point which is bothering us.

For instance, we might, with the aid of the manufacturers, draw up certain electrical and mechanical specifications on the equipment; also certain requirements relating to the construction and insulation of the cabinets. Would we be going too far in this? Would the only proper test be one which determined whether or not the refrigerator would maintain proper temperatures under normal operating conditions, in which case the testing agency might have to formulate an opinion as to the permanency of such operation?

From the above, I think you can see the lines along which we are thinking and your frank comments and assistance on the above points will be very gratefully appreciated.

G. W. WESTON,
Secretary-manager.

Quite Interesting

Williams Oil-O-Matic Heating Corp.
Bloomington, Ill.

Sept. 10, 1932.

Editor:

Your editorial in the last issue of ELECTRIC REFRIGERATION NEWS, containing a speculative analysis of the department store situation, has proved quite interesting.

D. M. FRANK,
Advertising manager.

The Right Line

Trupar Mfg. Co.

Dayton, Ohio

Sept. 10, 1932.

Editor:

Let me be among the first to congratulate you on the front page editorial in your issue of Sept. 7. I really and sincerely think that this is along the right line, and will be of tremendous help in focusing attention on the difference between good equipment and shoddy equipment.

I also think your editorial on the department store is very good. Your thoughts coincide a great deal with my personal views. I am certainly glad to see articles of this kind of ELECTRIC REFRIGERATION NEWS.

W.M. MYERS,
Merchandising division.

An Old Story

Grigsby-Grunow Co.
5801 Dickens Ave., Chicago

Sept. 12, 1932.

Editor:

Any manufacturer who has a large investment in the refrigeration business—who is equipped mentally and physically to stay in the business—will be happy with the front-page editorial in your issue of Sept. 7.

What has happened this year with the so-called "fly-by-nights" coming into our industry has been duplicated in every successful industry. It's the old story of the parasites trying to capitalize the legitimate manufacturer's operations.

It is consistent to judge the manufacturers in our industry by the capital investment represented and the reference you make to those who have no responsibility is quite opportune. While all of this appeals to us as legitimate manufacturers, what must we do to impress the buying public with the dangers as set forth in your editorial?

How can we impart to the buying public the importance of greater discretion in the purchase of electric refrigerators? How can we impart to them the importance of determining whether or not the manufacturer is reliable? How can we do this and still retain a position that is not offensive to a public which is demanding low prices, but also demanding quality?

JOHN F. DITZELL,
General sales manager.

CREDIT MAN DEFENDS INSTALMENT BUYING

By Elston D. Herron

DETROIT—Instalment buying was defended as "a bright spot in the business picture," and the establishment of large numbers of new retail outlets was attacked as one of the chief obstacles confronting the successful operations of American retail merchants, when Walter T. Elliott, manager of the reporting division of the Merchant's Credit Bureau, recently addressed the Beauvilliers at their initial meeting here.

"One constantly hears that instalment credit has contributed heavily toward the present industrial upheaval, but the truth is that all of the alterations in the business trend which we can properly attribute to instalment buying are measured in a fraction of one per cent," Elliott declared.

Tested by Economics

He said further that as a system, instalment plans have been placed by the present economic situation under the most rigid tests, and have demonstrated conclusively their right to survive.

Regarding the effect of newly-established retail outlets on modern business, Elliott said that "the distributing business of this country could be handled more successfully and advantageously to all concerned if the number of retail outlets were reduced to an intelligent minimum."

New merchants, 50 per cent of them starting business because of encouragement and assistance from wholesalers and manufacturers, launch themselves in business without any fundamental idea of proper credit control, he continued. As a result, they tear down the credit fabric as rapidly as the well-informed are able to build it.

Distribution Important

"Distribution is the most important function in commercial life today. It needs every safeguard. And commercial bankruptcies could be reduced to a minimum if proper methods of credit extensions were constantly practiced by wholesalers and jobbers," the speaker stated.

He pointed out that the total volume of retail merchandising last year was 50 billions of dollars, and stated that 65 per cent of this business was transacted by independent merchants.

ELECTROLUX SALES OF GAS UTILITY SHOW GAIN OF 33%

CEDAR RAPIDS, Iowa—Up to June 1, Electrolux refrigerator sales of the Cedar Rapids Gas Co. were more than 33 per cent ahead of the same period last year.

Out of approximately 12,000 domestic gas meters in the city there are about 150 Electrolux installations.

Recently one of the local newspapers sponsored a "Varieties and Models of 1932" contest in conjunction with the Paramount theater, and invited merchants and business firms to enter the name of either their most popular product or article of merchandise.

Girls chosen to represent the product and company would then participate in a special show at which the winner would be selected.

Sales Manager McKinstry christened his gas company entry, a Cedar Rapids society bud, "Miss Electrolux." He also arranged that the gas company would have the exclusive refrigeration entry.

McKinstry's sales crew is composed of: Salesmen F. Clemens, H. Falcon, R. White, W. Van Fossen, D. Pitz, K. Cornell and N. Estes.

To stimulate competition among this group, a Sixty Dollar Club was organized. Each man netting \$60 worth of appliance sales in any one day gets a mark opposite his name. The man with the most marks at the end of the month receives a substantial cash bonus in addition to his commissions.

UTILITIES MAKE 18% OF 1931 REFRIGERATOR SALES

NEW YORK CITY—Electric light and power companies made 18 per cent of the refrigeration sales in 1931 as compared with 82 per cent made by all other outlets, according to Statistician Merle Rainey of the National Electric Light Association, which made a state-by-state survey of central stations' appliance sales for 1931.

It was found by the survey that the electric light and power companies do 17 per cent of the nation's appliance business. They account for 84 per cent of all sales of electric ranges.

Summarized below are the results of N. E. L. A.'s state-by-state survey of 1931 appliances sold by central stations:

	Number of Units Sold	Gross Sales (\$)	Approximate Sales Per Customer*	Percentage of All Electrical Merchandising Per Cent
Lamps	25,896,000	\$ 6,255,400	\$0.42	7
Electric Refrigerators	164,109	41,668,600	2.49	18
Electric Ranges	101,621	13,701,600	0.78	84
Electric Water Heaters	20,961	1,786,800	0.10	95
Other Electric Appliances	36,954,800	2.12	15
All Other Electric Sales	12,482,200	12,482,200	0.71	17
Total	\$112,849,400	\$6.62	17

*Total of Domestic and Farm Customers.

All Aboard for Muskegon!



One hundred Norge refrigerator salesmen, winners in Norge Corp.'s Extra Power summer sales contest, gathered in Detroit on Sept. 6 for a two-day meeting with Norge executives. A trip through the cabinet factory at Muskegon featured the first day's events, while a tour of the rollator plant in Detroit, and a banquet at which Major Howard E. Blood, president of Norge Corp., spoke, were most important on the second day.

SLOAN MOBILIZES LEADERS TO STUDY FOREIGN DEBTS

NEW YORK CITY—Under the temporary chairmanship of Alfred P. Sloan, Jr., president of General Motors Corp., a group of 76 leaders in industry, agriculture and labor have undertaken the task of mobilizing practical business opinions regarding the problem of inter-governmental debts in the light of changed economic conditions.

Acting as an "organizing unit" for what is to be known as the Committee for the Consideration of Inter-governmental Debts, the group has sent invitations signed by Sloan to several thousand business men and farm and labor leaders throughout the country asking them to become members.

Three democratic nominees for the presidency, Alfred E. Smith, John W. Davis and James M. Cox, are among the 12 men who have consented to act as vice chairmen of the committee. Nicholas Murray Butler and George W. Wickersham will also be vice chairmen.

Benjamin H. Kroger, Kroger Grocery and Baking Co., Cincinnati, and Clarence M. Wooley of the American Radiator Co., New York City, are among the members of the organizing committee.

In making public the plan to form this national committee, Mr. Sloan explained its objectives as follows:

"The problem of inter-governmental debts is a problem of dollars and cents. It can be solved only by hard straightforward business calculations. The American people cannot afford to leave a question so vital to their economic interests unsettled any longer.

"A question that involves billions of dollars directly and more billions indirectly and exercises an incalculable influence upon the welfare of our entire business life demands a solution based upon solid commercial reasoning. In its essence and in all its ramifications, the problem is a business problem and only a downright business solution will satisfy the great mass of the American people.

"There is no aspect of the problem that will not yield to ordinary processes of business thinking. Why not apply these processes? A solution reached in this way will be acceptable indeed must be acceptable, regardless of any minority that may find fault with it.

"The question to be asked by any one who will give reasoned judgment to the problem is briefly this: What will it mean in dollars and cents to America? What will it mean in jobs, increased production, enlarged markets?

"If business reasoning decides that insistence on payment is the best course, that then is the solution we want. If reduction or even outright cancellation is the answer, that on the other hand, is the answer that will be welcomed."

78-YEAR-OLD MAN OWNS OLDEST MICHIGAN LEONARD

DETROIT—Seventy-eight-year-old Frank C. Gale, Corunna, Mich., owner of a 45-year-old Leonard icebox, was adjudged the winner in this territory of the "Oldest Leonard Contest," sponsored by Buhl Sons Co., Leonard distributor here.

A model PL-550 Leonard electric refrigerator will be installed in his home to take the place of the old ice box.

Earl in July, Buhl Sons Co. started the search for the oldest Leonard icebox in its territory.

CENTURY ELECTRIC COMPANY
1806 Pine Street
St. Louis, Mo.
Offices and Stock Points in Principal Cities

FOR MORE THAN 28 YEARS AT ST. LOUIS

SERVEL STAFF USES 72-PAGE SALES BOOK

EVANSVILLE, Ind.—Servel Sales, Inc., has supplied each of its Servel household refrigerator salesmen with a new sales presentation manual which contains 83 photographs in its 72 1/2x11-in. pages, for illustrating each of the salesman's statements to prospects.

Each photograph is captioned with a short, large-typed phrase, presenting a new argument for electric refrigeration in general, or for Servel in particular.

Trend Toward Simplicity

Pictures of antiquated vehicles and illumination devices, opposite photographs of modern motor cars and indirect lighting fixtures, illustrate the statement that the trend is toward simplicity in all things today. Other pictures show that the trend is toward electric refrigeration today.

Then, following a two-page picture of the Servel factories, the book begins a sectionalized picturization of the Servel features.

The sections are: "Why simplest, year-round need, economy, time saving, health protection, better living, endorsements and models." Each division is conveniently tabbed.

ELECTRICAL WORLD

JANUARY 7, 1928

Reprinted from
Electrical World
January 7, 1928

**Running 25,831 Hours
without Reoiling**

Up to January 1st, 1928, these two Century Motors ran at full speed, with 2½ times normal pressure imposed upon the bearings—with only minor central station power interruptions. They are still running, and many of the original grinder marks on the bearing surfaces are still visible... Holes drilled in the bottom of the oil wells allowed the escape of all excess oil. Not a drop of oil has been added to that originally held in suspension in the continuous, unbroken strands of pure wool yarn used in the Century Wool-yarn System of Lubrication... The Century Wool-yarn System of Lubrication is standard equipment on all one horse power and smaller Single Phase, Polyphase and Direct-current Motors.

CENTURY ELECTRIC COMPANY
1806 Pine St.
St. Louis, Mo.
For More Than 24 Years at St. Louis

Century MOTORS

THERE IS A DECIDED DIFFERENCE

SINCE MARCH 31, 1924..

the date when the Century Wool Yarn System of Lubrication—a Century development—was adopted as standard for small Repulsion Start Induction Motors

DEPENDABLE LUBRICATION

has been available to Manufacturers of Refrigerators and other generally neglected appliances.

Century
MOTORS

LITTLE STORIES OF INTERESTING
PEOPLE
IN THE REFRIGERATION INDUSTRY

THE EXPANSION VALVE

By George F. Taubeneck

Man Bites Dog

When four members of the ELECTRIC REFRIGERATION News editorial staff moved Sept. 1 from the Colonial brick home on Woodrow Wilson, which we have been occupying for the last year, to an apartment in Poe Manor, an opportunity arose to tell a dandy story.

It's a double-barreled story, too, as you will see before you reach the end of this group of paragraphs. Here's the first shot:

The editor, engineering editor and two assistant editors of the News were eating food kept every day in an icebox.

This particular box, insulated solely with Michigan air, seemed to be a family heirloom—or something—and the landlady couldn't be persuaded to replace it with more modern refrigeration equipment.

And here's the other barrel:

Late last spring the Valve paid a pleasant visit to J. F. Nickerson, editor and publisher of *Ice and Refrigeration* and *Merchandising Ice*, two papers which have been standbys of the ice industry for decades. Mr. Nickerson is a fine-looking old gentleman of advanced years and distinguished mien.

We told him about our icebox, whereupon he told us about the General Electric refrigerator in his apartment!

It seems that one Sunday morning the Monitor Top didn't function. A notice on the box gave him a telephone number to call in such emergencies. Since it was Sunday morning, Mr. Nickerson had some misgivings about calling, but decided to phone just to see what would happen.

Before noon one of Dick Cooper's product men had replaced the unit—absolutely no charge. Mr. Nickerson was impressed.

When a man bites a dog, so runs the classic definition, that's news. And when the editor of the only trade paper in the electric refrigeration industry uses an icebox, while the editor of the publication which is the spokesman for the ice industry is served by an electric refrigerator, that's news, too!

During the time we lived in that house, we have no record of an electric refrigeration salesman calling—this in spite of the fact that it is located within a few blocks of both the Kelvinator and Copeland Detroit retail sales branches.

Isabelle, colored maid, recalls dimly that on one or two occasions, perhaps, one of the succession of individuals which keeps the doorbell ringing all morning might have mentioned something about a refrigerator. But nobody got past her, and she was not instructed to be hostile.

No cards were left, no invitations to a showroom appeared, nor did we get any direct mail literature. No salesmen came around during the evenings when one or more of the quartet chose to stay home.

More than that, the landlord is the manager of the Statler hotel in Detroit—which automatically should make him a Class A prospect—and has been the host to many banquets for which he received sizeable checks from Kelvinator, Leonard, Majestic, and other Detroit electric refrigeration manufacturers and distributors. He and his wife are now living in a fancy suite at the Statler.

Two chief reasons for our moving: poor refrigeration facilities, and an incompetent heating system (worn-out oil burner). What a chance for a good sales story!

Home-Made Air Conditioning

For nigh onto six years Jack Schaefer and the Valve have lived together. Our first apartment—for reasons better left unsaid—was named "the Morgue." Succeeding living quarters have been Morgue II, Morgue III, Morgue IV, etc. Naturally enough, the new apartment in Poe Manor was promptly dubbed the Rue Morgue.

And if we begin writing in the Poe manner—which, no doubt, we should rue—blame the surroundings. Anyway, the apartment is Frigidaire-equipped (multiple system). And what a pleasure it is to drink cold milk once again!

First night—which was a scorcher—in the new apartment we discovered a simple means of air conditioning.

The bathroom window fronts the entrance to Poe Manor, and draws air from a well-forested street. Without difficulty the shower may be adjusted so that its jet of artificial rain will slant directly across the current of air coming in through this window. An electric fan can be placed in the window, to blow the air current through the shower and

into the other rooms. And the comforting effect, believe it or not, is marked.

With this simple operation we get cooling, dehumidification, air washing, and circulation. Also noise, and a damp bathroom.

Jack Schaefer's father is taking under advisement the matter of putting this new air conditioning unit into quantity production. Mr. Schaefer has been manufacturing electrical supplies such as rheostats, switchboards, and theatre dimmers. Isn't much business in the latter line just now, for most theatres are already dim in these days.

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But the assembled salesmen laughed.

The Passing Show

This new Schubert show, we should judge, might have been designed especially for stag parties of salesmen.

The sanctimonious *Detroit Free Press* and the parsimonious *Detroit News* lambasted and flayed the show with every scathing adjective which the pious indignation, righteous wrath and unpeased inhibitions of the morally outraged ex-Sunday School teachers who cover Detroit theater openings could muster.

This was about the twenty-eighth time we've caught the Corine Muer act; yet the more we see it the better we like it.

Corine's chorines are the type which

Corine Wows 'Em

An even better show was staged for the Norge salesmen that night. Corine Muer, ace of banquet entertainers, and producer extraordinary for the refrigeration industry (by appointment to Kelvinator, Leonard, Majestic, Frigidaire, Nema and others), had one of her best troupes in action at the feast which concluded the two-day party.

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thing about his confidence in the future of the Norge market.

Johnny Knapp is the purchasing agent who turned sales manager, and did one of the biggest jobs on record of lining up first-class national distribution in a short space of time. Before Mr. Knapp was drafted, Major Blood had tried several sales managers from the refrigeration industry without success. What Mr. Knapp learned about salesmanship from the other side of the desk evidently was turned to account when he himself tried selling.

At this gathering Mr. Knapp made a speech which would have awakened the United States Senate. His text was: "Effort, not price, will sell refrigerators this fall." It was a dandy.

Peroration theme—"Get rollator religion!"

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According to the agency executives, Norge's problem was hopeless. General Electric, Frigidaire and Kelvinator were too well established. Unless Norge was willing to spend at least \$2,000,000 to build acceptance for its name, it wouldn't have a chance.

This spring that same agency did its best to get the Norge account.

Norge Salesmen

As capable-appearing bunch of salesmen as we've ever seen were the 100 men chosen as winners of the Norge summer contest.

Often groups of winning salesmen are as heterogeneous as the contents of a subway car on Saturday afternoon. These men, however, were all young, aggressive minded and strong chinned. Not a weak handclasp in the lot.

Especially "as advertised" were the winners of first (Nash sedan) and second (Waltham watch) prizes, B. O. Tolleson, Amarillo Lumber Co., Amarillo, Tex., and R. J. Magoni, Barnett Furniture Co., New Orleans.

These chaps were big, hearty, intense, likeable, enthusiastic.

That the Norge advertising slogan, "powered for the tropics," may be having some effect is indicated by the fact that both leading Norge salesmen are from the South.

Beating Time

You've doubtless heard that old gag about the drummer being fast because he beats time. That applies to us, too. On several occasions the weekly ELECTRIC REFRIGERATION NEWS has scooped the highly commendable weekly newsmagazine, *Time*.

Latest occasion was the announcement of Frigidaire's new base price of \$112 installed, delivered, tax paid, plus freight. This story appeared in ELECTRIC REFRIGERATION NEWS, Aug. 31; in *Time*, Sept. 12. *Time* also used the "inside dope" on the Frigidaire price slash given in "The Expansion Valve" of the Aug. 31 News. We quote:

"Frigidaire v. Upstarts. The last five years have brought dazzling growth to the electric refrigeration industry. Production leaped from 390,000 units in 1927 to 965,000 last year. Public utility companies have pushed sales to their customers to build up power consumption. At the forefront of the expansion have been General Electric, Kelvinator, General Motors (Frigidaire), Westinghouse, Servel's Electrolux has led the gas field. During the depression many a smaller manufacturing concern has added electric refrigerators as a profitable sideline. Examples: Crosley Radio Corp., Grigsby-Grunow Co. (radios), Wurlitzer Co. (musical instruments)—all concentrating on the low-price field. In addition, a large number of independent companies have mushroomed throughout the land, usually buying and assembling the parts. Refrigerator men who have grown up with the industry say that these newcomers are spoiling the market, in many cases foisting off inferior products which give all mechanical refrigerators a bad name."

"Aiming at what it regards as upstarts, General Motors last week slashed prices on its smallest Frigidaire from \$150 to \$112 including tax. General Motors hoped the other big companies would follow, for only through competitive elimination of the upstarts do they feel that a stabilized industry can be achieved. Officials say the quality of Frigidaires has not been lowered, though the guarantee is reduced from three years to one. Led by General Electric, all major producers have hitherto offered the long guarantee. Newcomers seldom offered more than one year."

Gathering of Lions

Most impressed were the champ Norge salesmen with the opportunity to see, hear and shake hands with such company celebrities as George Borg, chairman of the board of parent Borg-Warner; Les Dryden, Borg-Warner and Norge director, and president of the Long Mfg. Co. (clutches, radiators); President and General Manager Howard Blood; Vice President John Knapp; C. D. Donaven, secretary-treasurer and assistant general manager; Ire Reindel, assistant to the president; J. C. Buchanan, chief engineer; Herbert Morley, in charge of Muskegon factory operations; H. L. Spencer, national service manager; William H. McKiggan, purchasing agent; Howard Avery, Detroit factory manager, and Walter Seiler, executive vice president of Cramer-Krasselt advertising agency.

Mr. Borg was exhibiting, concurrently with the Norge meeting, a herd of Durham cattle at the Michigan State Fair. This herd, from his Wisconsin farm, has been winning prizes all summer. Like everything else Mr. Borg touches, his 1,800-acre farm is profitable.

Mr. Dryden is a genuine admirer of Major Blood. Says the former: "Howard always has got what he wanted from the rest of us Borg-Warner directors; and I have a deep-seated feeling he always will."

Another clever scene was one in which one of the highly successful Minsky brothers (Broadway burlesque producers) takes over the Metropolitan Opera Co. and makes it pay.

Otto H. Kahn, chief patron of the Metropolitan Opera, is introduced as a true kahnoisseur from the line of Famous Kahns of History, which includes Genghis Kahn, Kubla Kahn and Rubicon.

Practically all of the gags were new. We did object, however, to constant harping on the theme, "he can't take it."

What is it about that "take it" line which makes all N'Yawkers howl with glee whenever they hear it? Almost every funshow which has opened this year along Mad Mazda Mall of Manhattan (we're going to copyright that one) features some variation of the "he can't take it" line. And it always works. Just why is more than your humble correspondent can figure out.

It doesn't "take" in the hinterland nearly so well. But in the big town it has the vogue which the equally unworthy "izzatso?" once held throughout the nation.

At present Mr. Donaven is engaged in contracting for steel, lumber and other supplies for the next six to nine months' needs. Which should indicate some-

thing about his confidence in the future of the Norge market.

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YOUNG, ROBERTSON ON FEDERAL COMMITTEES

WASHINGTON, D. C.—Owen D. Young, chairman of the board of the General Electric Co., and A. W. Robertson, chairman of the board of the Westinghouse Electric & Mfg. Co., were appointed chairmen of committees at the National Conference of Business and Industrial Committees, which met here, Aug. 26, at the invitation of President Hoover.

Young will head the committee which is to study means for making credit available. Robertson is chairman of the committee in charge of expansion of capital expenditures by industry in the way of replacement of obsolete and worn-out equipment.

A central organization and six special committees were set up by this conference. The problems which these committees will attack are:

Increased use of credit; increased employment; expansion of capital expenditures by industry; stimulation of repair and other improvements of homes; increased employment on railroads and related industries through expansion of equipment purchases; and assistance to home owners with maturing mortgages.

Headquarters for the central organization will be in Washington, D. C. Everett Case, New York City, will be in charge as executive secretary. This group will be in contact at all times with the chairmen of the six auxiliary committees and will act as a clearing house of information and plans of action.

Daniel Willard, president of the Baltimore and Ohio railroad, and George H. Houston, president of the Baldwin Locomotive Works, were made joint chairmen of the committee on increasing employment on railroads and expanding industry through expansion of maintenance and purchase of new equipment.

Walter Teagle, president of the Standard Oil Co. of New Jersey, heads the committee for increased employment through sharing work.

The possibility of stimulating repair and improvement of home movement is to be headed by C. M. Woolley, New York City, chairman of the board of the American Radiator and Standard Sanitary Corp.

Organization of committees in the several districts to assist home owners with maturing mortgages is to be under the direction of C. A. Miller, president of the Reconstruction Finance Corp.

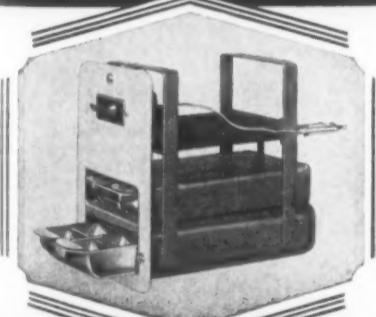
RACKLIFFE BROS. CONDUCT COMFORT-COOLING MEETING

NEW BRITAIN, Conn.—Comfort cooling was the subject of discussion at two dealer meetings held by Rackliffe Bros. Inc., Kelvinator distributor here.

One meeting was held at the Hotel Bond, Hartford, Conn., Monday, Aug. 15, for Connecticut dealers, and one at the Hotel Kimball, Springfield, Mass., Tuesday, Aug. 16, for Massachusetts dealers.

J. W. Millard, engineer of the Carrier-York Corp., discussed the latest developments in comfort cooling. Roy Washbon of the Esco Cabinet Co. debated on the fall milk cooling campaign.

McCord Domestic EVAPORATORS



Automatic defrosting between cycles of McCord fin tube type refrigeration cooling surface assures constant temperatures and minimum dehydration.

PRICES ON REQUEST

McCord Radiator & Mfg. Co.
DETROIT

How To Sell Electric Refrigerators

As Told By B. O. Tolleson, National Champion Norge Salesman

By Elston D. Herron

DETROIT—Ben O. Tolleson, Norge electric refrigerator salesman for the Amarillo Lumber Co., Amarillo, Tex., who, on Sept. 7, was awarded a Nash sedan in Detroit for the most outstanding sales performance in the Norge organization during the summer sales campaign, never considers a prospect "dead" until he buys an electric refrigerator. And having once found a prospect, Tolleson never lets him "cool off."

"Selling a prospect an electric refrigerator is a process comprising a variable number of contacts and sales presentations—the number of contacts necessary to close a sale varying with every prospect," the star salesman says.

"Only two or three visits to a home will be sufficient to sell some prospects a refrigerator, while the salesman must call several times a week over a period of months to sell other prospects a unit. "When I find a prospect, I make every effort possible to sell him a refrigerator in my first two or three visits, but, if he fails to buy, I continue to call on him, reviewing each time the features of my product—I try to keep the prospect thinking about it, mentally comparing its advantages with the refrigerator now in use, unknowingly creating the buying urge within himself," Tolleson says.

"If I were to neglect calling on my prospect for several weeks, the buying urge would vanish, and the selling job would have to be started all over again," he explains.

Courteous Persistence

"Courteous persistence" is the keyword for Tolleson's general plan of attack, for he calls on his prospects often enough to keep the word "Norge" constantly in his prospects' minds, yet not so frequently that they will consider him a nuisance. He believes that the frequency with which he can call upon a prospect must be determined by a study of each prospect's reactions to the visits.

Ordinarily, Salesman Tolleson, when talking to a housewife, confines his discussion of Norge refrigeration to the convenience, beauty and economy it offers. Not unless she asks specific questions about the compressor or other mechanical parts, does he go into any detail regarding this phase of Norge refrigerators.

When talking to a man about the refrigerator, however, Tolleson emphasizes the mechanical features of the Norge, and invariably uses his cutaway roller to illustrate his statements.

With all prospects—men and women alike—Tolleson has found it wise to emphasize more and more the economy of electric refrigeration, and says that this point is one of the best sale-getters he has found.

Salesman for a Year

Tolleson has been an electric refrigerator salesman less than a year. Until a year ago, he owned and operated a piano store in Harrison, Ark., but lost almost everything he had when several Harrison banks closed their doors. Without means of securing funds to reopen his business, he went back to Texas, his home state, and secured a position with the Amarillo Lumber Co., for whom he later became a Norge salesman.

While he does some cold canvassing for prospects, Tolleson much prefers to secure prospects' names from Norge users. He believes that prospects secured in this way are likely to be more interested in electric refrigeration than those secured by the door-to-door canvass.

Occasionally he uses the latter method, but not often—only when the number of prospects secured by other means is unusually low.

Aside from securing prospect names from users, Tolleson thinks the best way to find good prospects is obtaining them from church organizations.

When his list of prospects needs new names, Tolleson goes to several local churches, and announces that he will pay 10 cents per name for good refrigerator prospects, and suggests that various Sunday school classes work together in gathering them—and put the receipts in the general church fund.

By way of inducing these groups to secure good prospect names, rather than names of Amarilloans, the least interested in electric refrigeration, Tolleson advises the classes that he will pay \$4 for every sale made to a prospect whose name has been submitted by any of the groups.

He encourages competition among all the name-gathering classes by offering a \$10 prize to the group securing the most names by the end of a certain period. This prize is paid either to the high class in one church, or to the church submitting the most names, if several institutions are competing in the contest.

Most of the prospects secured in this way are serious, thrifty people who are interested in electric refrigeration, and have the money to buy it, Tolleson says. He attributes this to the fact that most church-workers' friends are of this type.

With few exceptions, Tolleson attempts to sell each prospect an electric refrigerator a size or two larger than

Champion



BEN O. TOLLESON
National champion salesman of
Norge refrigerators.

than a Norge booster," the salesman says.

"But if I can sell him a refrigerator which has as much or more storage space than he'll need, he becomes so satisfied with the roominess of the job that he will recommend the Norge to all his friends. It's just a case of how one cause for dissatisfaction with a refrigerator can blind the user to all its good points, and the question of proper size is one that requires a great deal of serious thought by the salesman," the star Norgeman explains.

Tolleson always attempts to learn as much as possible about his prospect before the first contact is made. He tries to find what the prospect's business is, what his hobbies are, how many children he has, what his likes and dislikes are.

Good Listener

He says that he tries to be a good listener as well as a good talker. "Sometimes," he says, "I spend far more time discussing politics and children with a prospect, than in talking about refrigeration, and I've found that most prospects appreciate the fact that I'm not trying to force an immediate sale. And when they think they are not being rushed, they will buy."

Unless it be to make an appointment for a "closing" visit, Tolleson never uses the telephone in talking to prospects. He believes that nine prospects out of 10 will say, "No" over a telephone, while most of them will allow the salesman to make his presentation if he calls without any previous notice or introduction.

"I have just one rule in my work as a refrigerator salesman," he declares. "That is: Be enthusiastic. If I have sold myself, I can sell others."

WINDOWS SHOULD LET PRODUCT STAND OUT

By Phil B. Redeker

DETROIT—Window displays should always follow a design that will allow the product to predominate, is the opinion voiced by Ralph Hunter of the sales promotion department of Kelvinator Corp., who specializes in window display designs.

The centering of attention on the product is the cardinal principle in all window designing, says Hunter, and the other generally maintained principle—that of having the background harmonize in design and color with the product—is merely a corollary of the first principle in that a color or design which clashes will draw attention from the product.

"If you discover that a display is unbalanced or that the foil-de-rois at the sides or in the corners is taking attention off-center, you know that the display has failed to achieve its purpose," says Hunter.

Effective displays can be easily and cheaply attained if the designer and builder will take time to learn the tricks of the craft, Hunter believes. The present modernistic motif with silver and black as the predominating color scheme is very easily attained with proper application of paint and correct lighting.

The public is the best judge of window displays, as far as Hunter is concerned, and he anxiously awaits reports from the field as to the effectiveness of his monthly designs.

ALUMINUM GIVEN FREE

HONOLULU, Hawaii—An advertising campaign featuring the offer of "\$1,000 worth of aluminum ware free" to purchasers of Gibson electric refrigerators is being sponsored here by Teves and Joaquin, Hawaiian Gibson distributor.

THE GREATEST NAME IN REFRIGERATION

... and our search for the Oldest Leonard proved it ...

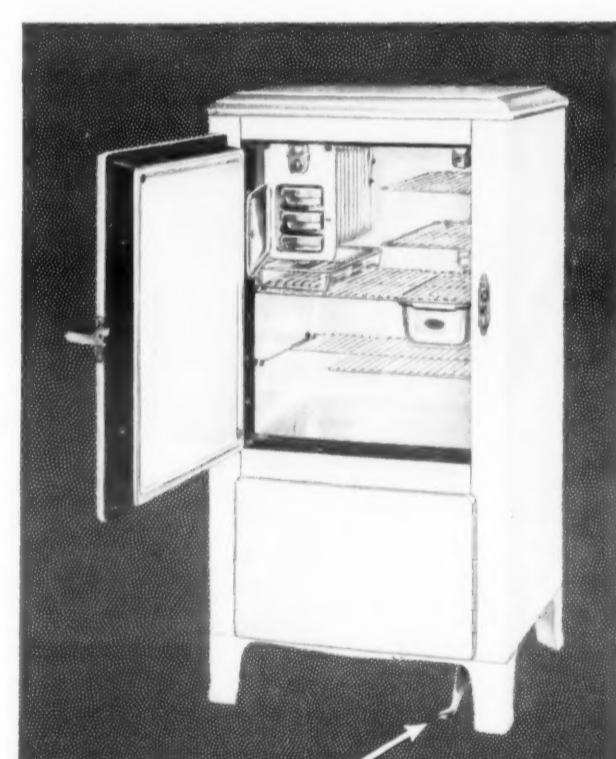
● In a nationwide newspaper campaign in June of this year, the Leonard factory offered to pay \$500 cash for the Oldest Leonard ice box found in the United States.

Over night, returns began to pour in, accompanied by letters of enthusiastic praise for Leonard quality and reliability. Thousands of fine old Leonards were entered—boxes still in daily use after 30, 40 and even 50 years. The "oldest Leonard" had served its owner, a California woman, for over half a century in the same home.

This campaign revealed the most impressive evidence of owner-satisfaction ever received by a refrigerator manufacturer. Proving how faithfully Leonard had adhered to the quality ideals of its founders, it established the Leonard name as the greatest in refrigeration.

Nowhere except in the Leonard line will you find such beauty, quality, convenience and low price—backed by the accumulated good will of three generations. This combination creates a franchise value that deserves careful and prompt investigation by any business man who is looking to the refrigeration field for growth and profit. Write or wire for details.

LEONARD REFRIGERATOR COMPANY
14256 Plymouth Road, Detroit, Michigan



WITH THE
LEN-A-DOR
a touch of the toe and
the door swings open

LEONARD
ELECTRIC REFRIGERATOR



Refrigeration Advertising and Sales Promotion News

FRIGIDAIRE PICTURES VALUE OF STATAFLEX

DAYTON—A brightly colored wall chart, illustrated with pictures and diagrams pointing out the features of Stataflex, the wall construction now being advertised by Frigidaire, has been prepared under the direction of J. J. Nance, manager of sales planning division.

The chart points out with pictures and text how heat travels in three ways: through radiation, convection and circulation; and also how Stataflex, by reason of its peculiar construction stops the passage of heat traveling any and all of these three ways.

After a prospect has received an explanation of this wall chart, he is ready for a demonstration which has been worked out by the Frigidaire sales division. This demonstration is thus described by Nance:

"The salesman, after explaining the chart, exhibits the chief piece of stage property—a cubical metal box about 10 in. high. Water is boiling in a glass tube suspended through a hole in its top. The heat comes from an electric light bulb inside, and the boiling water is assurance that the temperature of the box's interior is at least 212° F."

"The prospect, having been cautioned, is invited to touch one of the metal sides of the box. A light touch is sufficient to prove that the box is hot. The prospect, then, is asked to touch another side of the same box, a side that has been protected with Stataflex.

"He finds this side of the box at room temperature and so gets physical proof of all the sales points made in the wall chart," declares Nance.

1,000 STEEL HOMES BUILT IN UNITED STATES

CHICAGO—More than 1,000 steel houses have been built in the United States, according to the American Institute of Steel Construction, Inc.

One of these dwellings, erected in Chicago, has windows which extend around the house corners. This was done by cantilevering the floor and roof over the opening in the walls, a form of construction which is well known in modern apartment and office structures, but which is novel in small dwellings.

Frigidaire Sales Demonstrator



A pretty prospect tests the qualities of Stataflex insulation—a Frigidaire feature—by means of the new Stataflex demonstrator used by salesmen.

Kelvinator Issues Survey on 'Cutting Costs' In Hotels and Institutions

By Phil B. Redeker

DETROIT—Latest of the Kelvinator Corp.'s surveys in the various divisions of the commercial field is one which has been published under the title of "Cutting Costs in Hotels and Institutions," the report covering refrigeration practices in hotels, hospitals, clubs, benevolent and fraternal homes, private and charitable institutions.

The report is serving as sales fodder in the special drive which is now being made by Kelvinator commercial salesmen on the hotel and institution market.

The report takes as its purpose the discussion of "some of the ways in which successful managers have attained a reputation for an excellent board without loss of profit and even with added economy and increased profits."

The best of food can be provided, and opportunities for profit can be created, if the right refrigeration equipment is installed, the report points out. Figures

taken from two branches of a nationally known organization, identical for operating set-up with the exception of refrigerating equipment, demonstrated that the branch with modern refrigeration made a net profit on its board that was nearly double that of the branch employing antiquated refrigeration.

The hotel management, according to the survey, has four objectives in providing a good board in low costs. These may be listed as follows:

1. Management must buy economically.
2. Management must provide adequate storage to insure freshness and prevent waste.
3. Management must strive to improve quality and appearance of food at all times.
4. Management must simplify and speed up table service.

Quantity Buying

Adequate refrigeration allows the management to buy direct and in larger quantities. For example, a sanitarium replaced small cabinet boxes with a cooler of medium size. The management was able to get extra discounts of 4 to 10 per cent in buying carcass meats—halves and quarters. The saving over a period of six months amounted to almost \$400. The report points out, however, that such economical buying must be backed by adequate storage facilities.

Adequate refrigeration is the best insurance that all food will be used, and that the food that is used will suit the patrons, says the report. Records of a private hospital's kitchen are cited to show that improved refrigeration reduced food waste and spoilage from \$68.89 to \$12.62 in a month.

New refrigeration equipment often simplifies kitchen and service routine, the report brings. The manager of a popular-priced hotel dining room is quoted as saying that his department was charged an annual rental of 75 cents a square foot. By rearranging the kitchen layout at the time of installing new and more compact refrigeration, a vegetable room was moved down into the basement and 225 sq. ft. of space was "moved out" into the dining room. The change yielded a normal profit on \$150 worth of table space and speeded up kitchen work.

The survey shows that it is sometimes advantageous to "spot" equipment more conveniently to save time and labor. Investigators reported instances of employees hampered by awkward, step-wasting layouts; interfering with each other because of poorly placed tables, stoves, sinks; getting in each other's way using central refrigerators.

Saves Working Time

In the average institution or hotel careful tests have proved conclusively that adequate refrigeration saves the working time of from .3 to 1.75 persons for every 10 persons employed in the kitchen or in service, the report avers.

How refrigeration can be used as concrete evidence of the care taken to insure the comfort and well-being of its guests is pointed out in the report. Improved refrigeration equipment can be publicized by (1) attractive food displays, either in window cases or floor cases; (2) menu references to the refrigeration equipment; (3) word of mouth advertising.

Refrigeration plays an important role in making easy certain major responsibilities which fall on the shoulders of the management of nonprofit institutions, the report states.

These responsibilities are, briefly, (1) the responsibility for maintaining health of the guests; (2) the necessity for maintaining good spirit and morale; (3) the responsibility of keeping strictly within a budget; (4) the responsibility for reporting to a board of governors.

Cleveland League Sponsors Schools

CLEVELAND—Estimating that electric refrigeration had been brought to the attention of more than 107,536 theatre-goers at an expense of \$.023 per person, the Electrical League of Cleveland has just issued a summary of seven cold cookery schools held in seven community motion picture theatres this year.

The distributors sponsoring these cold cookery schools were as follows: Apex Rotarex Corp., distributor of Apex refrigerators; the Bingham Co., distributor of Bohn; the Cushman Refrigeration Co., distributor of General Electric; the Danforth Refrigeration Co., distributor of Westinghouse; Frigidaire Sales Corp., distributor of Frigidaire; the Kelvinator Sales Corp., distributor of Kelvinator; and the Frankelite Co., distributor of Copeland.

Actual demonstrations to prospects numbered 2,536. An average attendance of more than 5,000 per week at each cold cookery school was recorded.

Displayed for 3 Weeks

At each theatre, one of each make of refrigerator was displayed in the lobby for a period of three weeks. Each machine displayed the name of all member dealers who sold that particular make.

Each theatre ran screen publicity in all shows for a period of two weeks, advertising the school, and calling attention to the display in the lobby.

Single sheet inserts were put in all the handbills distributed by the theatre the week before the school.

Local papers carried news stories and extra space was taken in the box advertisement of the theatre in the classified amusement section during the week of the school.

Distribute Handbills

Handbills and prize coupons were distributed in the territories around the theatres by refrigeration salesmen before and during the demonstration sessions.

The cookery school was held every afternoon from 2 o'clock to approximately 3:45, from Monday through Friday, at the theaters scheduled.

To assist women in following the demonstration, menu cards, containing all recipes used that day, were furnished to all present, different cards being provided each day. In addition to the recipe cards, every woman received a copy of a recipe book, containing tested refrigerator recipes.

Chronological Outline

The chronological outline of the cold cookery activity at one theatre for a period of three weeks was as follows:

First week: Lobby display of seven refrigerators set up on the preceding Saturday. Trailer on screen started Sunday afternoon. Prize coupons, (to be deposited at cold cookery school only), distributed by theatre, starting Sunday afternoon. Distribution of 4,000 handbill inserts by salesmen Monday morning. Distribution of 4,000 handbill inserts by theatre Thursday or Friday. Equipment for school delivered to the theatre Saturday.

Second week: Notice of school in classified amusement sections of Sunday papers. Second trailer started on screen Sunday afternoon. Telephone invitations made from dealer's store by assistant demonstrator Monday morning, and continued every morning except Saturday. First session of school conducted Monday afternoon, at two o'clock. Announcement of school in classified amusement sections of daily papers, continued through Friday. Concluding session of school held Friday afternoon.

Expenses Distributed

The activity was financed by the theaters, the distributors and the Electric League. The theaters paid one-half of the expense of the coupons, handbill inserts and the trailers on the screen. In addition, they donated the use of the theatres for the afternoons of the actual schools, and the lobby space for a period of three weeks per theatre. Lights, power and janitor service were paid by the theaters.

Each distributor donated one refrigerator (minimum 6 cu. ft. size), one \$100 purchase certificate, one \$50 certificate, and four \$25 certificates. Distributors also paid the expense of haulage of cabinets on display at the various theatre lobbies. Each distributor furnished two machines to be used for demonstrations on the stage. One of these in each case was donated as a prize. These expenses amounted to about \$500 for each distributor.

The League's financial participation included salaries, equipment, supplies, newspaper advertising (space in classified amusement section), printing of recipe books, menu cards, and certificates, cost of mixers given away as prizes, and one-half the cost of coupons, handbill inserts, and the two trailers on the screen. This cost was approximately \$2,036.

REFRIGERATOR FIRMS AMONG AD LEADERS

DETROIT—Seven of the 100 leading advertisers for the first six months of 1932, in 35 leading magazines, were manufacturers of electric refrigeration equipment, according to *The Adrafter*.

General Electric Co. ranked as the eighth leading advertiser for the first six months of 1932, having purchased space amounting to \$1,057,427.26. Advertising space bought by the General Electric Vapor Lamp Co. and the Edison General Electric Appliance Co. is included in these figures.

The Frigidaire Corp. ranked as eighteenth leading advertiser, having invested \$465,951 in magazine space for this period. In 1931, Frigidaire ranked thirtieth. Advertising of Frigidaire air conditioners is included in these figures.

Westinghouse Electric & Mfg. Co. likewise ranks higher in magazine advertising this year, moving from fifty-sixth place to twenty-eighth. The amount spent for the six months was \$398,215. This sum included all Westinghouse magazine advertising.

Kelvinator Corp. spent \$224,050 for magazine advertising during this period, ranking as sixty-third advertiser.

Servel, Inc., in seventy-ninth place, spent \$191,882 for advertising space in magazines.

Norge Corp. invested \$132,000 for advertising. These three concerns, Kelvinator, Servel and Norge, advertise electric refrigerators exclusively.

The Electric Refrigeration Bureau ranks ninety-ninth as a leading advertiser, having spent \$131,171 for space.



**Balsam-Wool
Sealed Slabs**
✓ **NATIONALLY
ACCEPTED**
Completely satisfactory
Refrigerator Insulation

WOOD CONVERSION COMPANY
Industrial Sales Offices:
CHICAGO, 360 N. MICHIGAN AVE.
New York, 3107 Chanin Bldg.
Detroit, 320 Stephenson Bldg.

Testing Service

for Domestic and Commercial
Electrical Refrigeration

Testing and experimental
laboratory service for Manufacturer,
Distributor, Central Station. Test data exclusive property of client.

Electrical Testing Laboratories
Know by Test
80th St. & East End Ave.
NEW YORK

Testing Laboratory

For refrigerators
and refrigerating equipment

George B. Bright Co.
Refrigerating Engineers and Architects
2615 12th St., Detroit, Mich.

NAME PLATES ALL KINDS...
Vitreous Enamelled or All Metal
What better advertisement is there than a good looking
name plate? Let us design one for you.

THE D.L. AULD CO.
COLUMBUS, OHIO

the **PUREST SULPHUR DIOXIDE**
Extra dry
ESOTOO
75 WEST ST. NEW YORK
11 STATE ST. BOSTON
VIRGINIA SMELTING CO.
WEST NORFOLK, VA.

WOLVERINE Seamless Copper Dehydrated Tubing



Clean-Dry-Sealed

WHEREVER you are—you can get the best refrigeration tubing made—and get it at once. The Wolverine Organization is proud of its leadership in service as well as in quality. All orders are shipped within 24 hours of receipt—from a large stock. All standard diameters—plain or tin plated—of 25, 50, 75, and 100 ft. lengths—always available.

WOLVERINE TUBE CO.

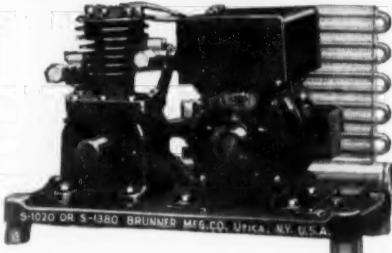
SEAMLESS COPPER  BRASS & ALUMINUM
Export Dept.
H. M. Robins Co., Detroit

Sales offices in 26 cities. Eastern sales office, 420 Lexington Ave., New York. Stock available at Los Angeles, 1015 E. 16th St.
Write or wire for name of nearest representative.

BUYER'S GUIDE

*Manufacturers Specializing in Service
to the Refrigeration Industry*

SPECIAL ADVERTISING RATE (this column only)—\$12.00 per space. Payment is required monthly in advance to obtain this special low rate. Minimum Contract for this column—13 insertions in consecutive issues. All advertisements set in uniform style of type with standard border. Halftone engravings of 100-line screen, either outline or square finish. No reverse cuts or heavy black effects. No charge for composition.



Brunner Equipment is Priced to Get Sales for You On a Competitive Basis

It is built to create good-will through longer life and freedom from trouble.

BRUNNER

High Sides and Compressors

Brunner Manufacturing Co., Refrigeration Division Utica, N. Y.

FROSKIST WATER COOLERS

Pressure Type
Direct Expansion

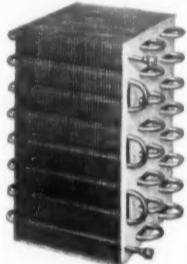
Sizes 5 Gal. to 100 Gal.

For use with F12, Sulphur Dioxide, Methyl Chloride, and Ammonia

H. C. PARKER, LTD.

2627 Santa Fe Avenue (Factory), Los Angeles, California
392 Clifton Ave., Newark, N. J.
510 Larkin St., San Francisco, Calif.
734 M. & M. Bldg., Houston, Texas
237 Roosevelt Bldg., St. Louis, Mo.
37 W. Van Buren St., Chicago, Ill.

A NEW FIN COIL by PEERLESS



Wedge-locked and edge-locked aluminum fins on tinned copper tubing for methyl chloride, sulphur dioxide, F-12, etc.—aluminum tubing for ammonia. Absolute Metal to Metal Contact. A Superior Coil in which Soldered Return Bends have been eliminated.

Priced to meet 1932 conditions. Write—Wire for Catalog.

PEERLESS ICE MACHINE CO., 515 W. 35th St., Chicago, Ill.

HOOSIER STANDARD PARTS SAVE

Expense -- Labor -- Time

Complete—packaged—ready for shipment in your refrigerators—Hoosier Parts are shipped on time with your production schedules. The No. 77047 cube tray with patented Alumilite Anodized treatment and chrome handle, shown here, is one of many styles and sizes available. Write for details.

Dessert Trays—Defrosting Pans

HOOSIER LAMP & STAMPING CO. EVANSVILLE, IND.

COMBINATION SUBSCRIPTION RATES

How to save money on your subscription order

NO.	PUBLICATIONS	YOU PAY	YOU SAVE
1	Electric Refrigeration News (1 Year) and Refrigeration Directory and Market Data Book	\$4.00	\$1.00
2	Electric Refrigeration News (2 Years) and Refrigeration Directory and Market Data Book	\$6.00	\$2.00
3	Refrigerated Food News (1 Year) and Refrigeration Directory and Market Data Book	\$2.00	\$1.00
4	Refrigerated Food News (1 Year) and Electric Refrigeration News (1 Year)	\$3.50	\$.50
5	Refrigeration Directory and Market Data Book and Electric Refrigeration News (1 Year) and Refrigerated Food News (1 Year)	\$4.50	\$1.50
6	Refrigeration Directory and Market Data Book and Electric Refrigeration News (17 Weeks)	\$2.00	\$1.00

Order by number. Use coupon below. These rates for U. S. only.

Group Order Rates for U. S. and Foreign Countries

PUBLICATIONS	NUMBER	UNITED STATES	CANADA	ALL OTHER COUNTRIES
Electric Refrigeration News	1 subscription	\$3.00	\$6.00	\$4.00 These foreign 5 or more, each... 2.75 5.75 3.75 rates will 10 or more, each... 2.50 5.50 3.50 be increased 20 or more, each... 2.25 5.25 3.25 on or before 50 or more, each... 2.00 5.00 3.00 Jan. 1, 1933.
Refrigerated Food News	1 subscription	\$1.00	\$2.00	\$1.50 These foreign 5 or more, each... .95 1.95 1.45 rates will 10 or more, each... .90 1.90 1.40 be increased 20 or more, each... .85 1.85 1.35 on or before 50 or more, each... .80 1.80 1.30 Jan. 1, 1933.
BOTH PAPERS	1 subscription	\$3.50	\$7.00	\$5.00 These foreign 5 or more, each... 3.25 6.75 4.75 rates will 10 or more, each... 3.00 6.50 4.50 be increased 20 or more, each... 2.75 6.25 4.25 on or before 50 or more, each... 2.50 6.00 4.00 Jan. 1, 1933.

*U. S. and Possessions and Pan-American Postal Union Countries.

?High rates for Canada are due to Canadian tariff of 5¢ per copy.

SUBSCRIPTION ORDER

BUSINESS NEWS PUBLISHING CO., 550 Maccabees Bldg., Detroit, Mich.	1932
<input type="checkbox"/> Enclosed is remittance for \$.....	
<input type="checkbox"/> Please enter my order for COMBINATION OFFER NO. at \$.....	
<input type="checkbox"/> Enter subscription to Electric Refrigeration News <input type="checkbox"/> 1 Year \$1.00. <input type="checkbox"/> 2 Years \$5.00.	
<input type="checkbox"/> Enter subscription to Refrigerated Food News <input type="checkbox"/> 1 Year \$1.00. <input type="checkbox"/> 2 Years \$1.50.	
<input type="checkbox"/> Send 1932 Refrigeration Directory and Market Data Book. \$2.00 per copy.	
Name	
Address	
City	State.....
S-14-32	

REQUESTS FOR INFORMATION

Please refer to the 1932 Refrigeration Directory and Market Data Book for a complete list of all manufacturers of refrigeration equipment, parts, materials, supplies and accessories; also for all available statistical data on sales of refrigeration equipment, distribution methods, etc.

To obtain a copy of this book send \$2.00 to Business News Pub. Co., 550 Maccabees Bldg., Detroit, Mich.

Advertisers will be given preference in published answers to requests for buyer's guide service, but a complete list of all known suppliers will be mailed if stamped, self-addressed envelope is enclosed with inquiry.

Readers who can be of assistance in furnishing correct answers to inquiries, or who can supply additional information, are invited to address Electric Refrigeration News, mentioning query number.

Philadelphia Unit Totals

Query No. 938 (Advertising company, Philadelphia)—"Is it possible for you to furnish us with the total number of refrigerators sold in 1931 in the Philadelphia area? We would like this information per particular unit if possible. What we are trying to drive at is the sales cost per box of the established units on the market."

Answer—See ELECTRIC REFRIGERATION NEWS of Feb. 24, 1932, for total number of household units sold during 1931 in Pennsylvania. Figures for Philadelphia alone are not available.

Used Refrigeration Equipment

Query No. 939 (Texas)—"We would appreciate it if you would please forward the names of any firms dealing in used refrigerating equipment, our interest being only in commercial."

Answer—In spite of the increasing number of concerns doing this type of business, we have no complete list. Communicate with Kaskey & Quinn, 525 Arch St., Philadelphia; Tigar Corp., 211-13 Second St., Chelsea, Mass.; Automatic Refrigeration Service Co., 308 Tenth St., Washington, D. C.

Socold and Electric

Query No. 940 (Refrigeration service, Pittsburgh)—"Kindly advise us if the manufacturers of the Socold and Belding Hall Electric are still building these units."

Answer—Both Socold and Electric refrigerators are no longer in production. We have no record of any firm supplying replacement parts for the Socold, but for Electric parts communicate with the Gibson Electric Refrigerator Corp., Greenville, Mich., which purchased the Belding Hall Co.

Crystal Refrigerator

Query No. 941 (Attorney, New York City)—"A fire insurance company which we represent is being asked to pay for fire damage on a 'Crystal' electric refrigerator and we are trying to trace the original sale to ascertain the age and cost price of the machine. It was purchased from a dealer on Canal St., New York City, but as we have been unable to locate him, we would like to know the name of the manufacturer and the New York agent. It is said to have been purchased about two years ago."

Compressors and Evaporators

Query No. 942 (Refrigerator assembler, Mass.)—"I would like to secure list and dealer prices on compressors and evaporators from several of the manufacturers. I am going to assemble a refrigerator in a Seeger cabinet to sell at West Palm Beach, Fla."

Answer—Write direct to manufacturers listed in the 1932 REFRIGERATION DIRECTORY and MARKET DATA BOOK.

Refrigerator Repair Parts

Query No. 943 (Refrigeration jobbers, Calif.)—"We are jobbers of a complete line of refrigeration equipment, representing such concerns as Feeders Mfg. Co., Buffalo; Detroit Lubricator Co., and other eastern manufacturers.

"We are in the market for a complete line of refrigerator repair parts for all makes of machines, and we are wondering if you could put us in touch with someone who might manufacture replacement parts for Frigidaire, Kelvinator and other standard makes of machines."

Ice Cream Cooling Unit

Query No. 944 (Refrigeration service, Iowa)—"Can you send me the name of the firm that makes a flooded type shell evaporator that is used in ice cream cabinets, and eliminates the use of brine? It is made, as I remember it, of steel with about 1/8 in. of refrigerant space that fits around the cream can, and may be flooded or used on dry systems?"

Books on Refrigeration

Query No. 945 (New York)—"Can you recommend the best books (with publishers and prices) on both domestic and commercial refrigerators—books that will enable me to make first an elementary study followed by a detailed study of (1) different makes, the details of operation, construction, efficiency, etc., and (2) commercial refriger-

ation showing how to figure and understand the installation?"

Control of Solid CO-2

Query No. 946 (Auto body manufacturing company, New York City)—"Will you kindly inform us if there is such an apparatus as a dry ice controlling device, also makers of dry ice bunkers suitable for fresh meats and provisions. It should produce a temperature of about 40° F."

Answer—Dry-Ice Corp. of America, 52 Vanderbilt Ave., New York City, and York Ice Machinery Corp., York, Pa., will be able to give you information.

How To Pay

Salesmen

Plan of Los Angeles Chamber Of Commerce

LOS ANGELES—A plan for paying salesmen should, according to a study of the subject of salesmen's compensation just completed by the sales manager's bureau of the Los Angeles Chamber of Commerce, provide the following essentials:

1. Enable the salesmen to maintain a standard of living compatible with the people they must approach.
2. Have the support of salesmen.
3. Be clear enough and simple enough to inspire the salesmen's confidence and knowledge that he will receive fair treatment.
4. Provide an incentive to the salesmen for doing more business.

5. Protect customers to the extent that salesmen will guard their chances for future orders and refrain from overstocking the buyer.

6. Make some allowance whereby the salesmen's selling expenses do not absorb the greater part of his earnings.

7. It must be made on a basis equitable to the house as well as the salesmen. The firm is not operated solely for the benefit of the sales force.

8. It must be flexible enough to enable the salesmen to increase their earnings as they become more efficient.

9. The essence of the compensation plan must be to incite the salesmen to sell goods, earn the goodwill of the customers, and return a profit to the firm as a result of their efforts, at the same time enabling them to increase their earnings as they become more proficient in their work.

The report discusses forms of compensation, salesmen's automobile allowances, expense accounts, the trend in compensation plans, and the local situation in Los Angeles with regard to successful compensation plans.

THE CONDENSER

PAYMENT IN ADVANCE is required for advertising in this column. The following rates apply:

POSITIONS WANTED—Fifty words or less, one insertion \$2.00, additional words four cents each. Three insertions \$5.00, additional words ten cents each. ALL OTHER CLASSIFICATIONS—Fifty words or less, one insertion \$3.00, additional words six cents each. Three insertions \$8.00, additional words sixteen cents each.

REPLIES to advertisements with box numbers should be addressed to the box number in care of Electric Refrigeration News, 550 Maccabees Building, Detroit, Mich.

POSITIONS WANTED

DRAFTSMAN—Bachelor of Science degree, Carnegie Institute of Technology, engineering. Ten years' general drafting experience. Last five years and at present time in electrical refrigeration with same company, a NEMA member. Wide experience in cabinet design. Good health, neat, accurate, and rapid. 36 years of age. Available after Sept. 8. Best references. Full details upon request. Box 506.

SERVICE TRAINING

Competent Refrigeration service training offers greatest opportunity in the most important department day and night, year in and out, through depression and prosperity, even after production and sales stop, the service expert must carry on. Every refrigerator is a source of \$75 to \$100 wages to service men over a life of ten years; an amount greater than commissions of salesmen and profit of manufacturer. Learn practical service combined with necessary theory in shortest time at moderate cost. Herkimer Institute of Refrigeration, 1819 Broadway, New York, N. Y.

EQUIPMENT FOR SALE

CLEARANCE SALE of reconditioned Frigidaire equipment, model K 1/3 horsepower, model N 1/2 horsepower, model C 1 horsepower compressors. Coils model 14F, 17F, 18F, 63F, 78F, 96F household coils, ice cream cabinets, etc. Write for list of equipment. We buy Frigidaire equipment and parts. Lawton Huffman, Marshalls Creek, Pa.

RUSSIAN ENGINEER BUYS NORGE FOR FOREIGN HOME

CINCINNATI—M. Steinberg of Moscow, Russia, who has been vacationing here, recently purchased a Norge model "D" refrigerator to take back to Russia with him.

Steinberg is an American born of Russian parents and has recently completed a two-year contract in charge of a large engineering project in Russia.

He was here on his vacation and was scheduled to return to Moscow for another two-year contract Sept. 1.

Export of Refrigerators

June, 1932, Shipments Reported by the Bureau of Foreign and Domestic Commerce, Washington, D. C.

Electric Household Refrigerators Number	Value	Electric Commercial Refrigerators Up to 1 Ton Number		Value
Electric Refrigerators Number	Parts for Electric Refrigerators Value			

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